A VALIDATION AND EFFICACY STUDY EXAMINING THE ELECTRONIC HOME NOTE INTERVENTION PACKAGE FOR INCREASING RATES OF ON-TASK AND ACADEMIC PERFORMANCE

by

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ABSTRACT

The aim of this study was to increase the rates of on-task behavior and academic achievement for 4 participants with the Electronic Home Note Intervention Package. The Electronic Home Note Intervention Package was designed to enhance a common school-based behavioral intervention, the home note, by creating an electronic version of the home note and incorporating parent, participant, and teacher trainings and motivational components. Teachers used the Electronic Home Note in the general education classroom to monitor behavior while the participants were engaged in independent math seatwork time. Each parent was asked to review these ratings with their child on a daily basis.

The Electronic Home Note Intervention Package was shown to increase the rates of on-task behavior across all participants in the study; effects were maintained at 2 weeks postintervention but these did not reach the levels of on-task of their comparison peers. Moderate improvements in completed and accurate classwork were found. Ratings made by the teacher on the Electronic Home Note were comparable to external observer's ratings using systematic direct observations and parents indicated consistent review of the Electronic Home Note data with their child. High acceptability of the Electronic Home Note Intervention Package from the participants, parents, and teachers, through social validity ratings, was found. Implications for the use of the Electronic Home Note Intervention Package and future directions are explored.

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INTRODUCTION AND LITERATURE REVIEW

Rhode, Jenson, and Reavis (2010) estimated that the average student who performs well in the classroom is on-task roughly 85% of the time. Comparatively, students who are experiencing academic or behavioral difficulties are on-task 50% or less of that same class time. Being that these students are missing 35% of the classroom time, interventions to promote positive effects for students experiencing such difficulties are warranted (Ducharme & Shecter, 2011). With interventions targeting specific on-task behaviors, students will have less time to exhibit, and thus decrease, the frequency of disruptive behaviors in the classroom (Kelley, 1990; McKissick, Hawkins, Lentz, Hailey, & McGuire, 2010). By increasing the amount of academic engagement time, their ability to learn increases as a consequence (Ponitz, Rimm-Kaufman, Grimm, & Curby, 2009).

Disruptive behaviors that result from a student being off-task do not only affect the individual student. Such behaviors may prevent other students from learning and may cause disturbances in the teacher's ability to teach (Greenwood, Horton, & Utley, 2002). Walker, Ramsey, and Gresham (2004) reported that a poll of American Federation Teachers indicated that 17% of teachers reported losing 4 hours or more of teaching time weekly due to disruptive behaviors while another 19% reported losing 2 to 3 hours weekly. With so much instructional time being lost to disruptive behaviors, it is difficult to see how significant academic achievement growth can be made. With one of the most common referrals for school support staff being off-task behaviors (Roberts, 2003) and

the undermining effect these have on academic competence (Masten et al., 2005), interventions to promote on-task behaviors with students displaying disruptive behaviors are warranted. One such intervention that has been shown to increase on-task behavior and academic efficiency is a home note (Riley-Tillman, Chafouleas, & Briesch, 2007; Vannest, Davis, Davis, Mason, & Burke, 2010; Volpe & Fabiano, 2013).

Several authors have completed fundamental reviews of the home note intervention. One of the earliest reviews was conducted by Kelley (1990) with her book, *School-Home Notes: Promoting Children's Classroom Success*. In her book, the author describes the possible uses of a home note, how to create one, and the research supporting the use of such an intervention. Jenson and Reavis's (1996) chapter in *Best Practices: Behavioral and Educational Strategies for Teachers* created a resource for teachers and other educators to support the use of the home note intervention to increase positive classroom behaviors. These authors also incorporated motivational strategies, such as a Mystery Motivator and a Reward Spinner, to promote buy-in from students. Kelley and Jurbergs (2009) also offered a review of home note procedures with their chapter: *Daily Report Cards: Home-Based Consequences for Classroom Behaviors* while Volpe and Fabiano (2013) provided an updated book, *Daily Behavior Report Cards: An Evidence Based System of Assessment and Intervention,* which reviewed the research and implementation procedures of a home note.

Home Notes

Monitoring strategies and performance feedback are keys to a student's academic success (Volpe & Fabiano, 2013). An intervention that promotes success in the classroom

while promoting collaboration between multiple parties is a home note (Blechman, Taylor, & Schrader, 1981; Chafouleas, Riley-Tillman, & McDougal, 2002). A home note has been known by many names in addition to a "home note" such as a "home-school note" (Kelley, 1990), "daily report card" (O'Leary & Pelham, 1978), and "daily behavior report cards" (Volpe & Fabiano, 2013), to name a few. The literature may waiver on the specific name for the intervention, but key components of the intervention have been defined as a clear target behavior, periodic judgment of behavior with a simple value-laden summary embedded in the scale, a system of daily behavior monitoring, and a communication component between the school and home (Frafjord-Jacobson, Hanson, McLaughlin, Stansell, & Howard, 2013; Vannest et al., 2010).

Vannest, Burke, Saubre, Davis, and Davis (2011) identified five steps in creating an effective home note. First, identify behaviors that will be targeted through the intervention for progress monitoring. Examples can include disruptive behaviors (LeBel, Chafouleas, Britner, & Simonsen, 2012), academic behaviors (Dougherty & Dougherty, 1977), and even Individualized Education Program (IEP) goals (Fabiano et al., 2010). Such monitoring can be through paper or electronic versions (Burke & Vannest, 2008). Second, identify how often ratings of a behavior can and should occur. Frafjord-Jacobson et al. (2013) recommended at least daily ratings of behavior. Moreover, meta-analytic research by Vannest et al. (2010) suggests that daily ratings of behaviors should span from multiple hours to the entire day.

The third step indentified by Vannest, Burke, Saubre et al. (2011) is the creation of a scale that best fits the behaviors that will be rated. Two scales have been conceptualized within the literature that suggests improvements in behaviors.

Quantitative ratings, such as using tally marks to record the number of behaviors that occur during a period of time, have been shown to decrease disruptive behaviors over time (Owens et al., 2012). Qualitative ratings, summative and retrospective ratings of behaviors, have also been shown to be effective in decreasing disruptive behaviors (LeBel et al., 2012; Jurbergs, Palcic, & Kelley, 2007). Vannest, Burke, Saubre et al. (2011) suggest the use of qualitative rating scales based on meta-analytic research (Vannest et al., 2010) and go further to suggest that using a 3-, 4-, or 5-point scale provides room for demonstrating progress over time.

Qualitative rating scales such as direct behavior ratings (DBRs) have been shown to be significantly correlated with systematic direct observations (SDOs), often considered the "gold-standard" of behavior observations (Chafouleas, McDougal, Riley-Tillman, Panahon, & Hilt, 2005; Riley-Tillman, Chafouleas, Sassu, Chanese, & Glazer, 2008). Along with the effectiveness of rating behaviors, DBRs have been shown to be an acceptable measure when compared to SDOs (Riley-Tillman, Chafouleas, Briesch, & Eckert, 2008) and similar decisions will be made based on the data gathered from each behavioral measure (Chafouleas, Riley-Tillman, Sassu, LaFrance, & Patwa, 2007; Chafouleas et al., 2005).

Two advantages are apparent when using DBRs within a home note rather than quantitative ratings. First, DBRs are summative and retrospective in nature and thus do not take much time to complete. Quantitative ratings, such as tally marks for behavioral occurrences, may be cumbersome to complete and may result in loss of academic instruction time. Second, DBRs do not require an external observer, as teachers can complete such assessments following an instructional activity. Quantitative ratings can be

completed by the teacher but may result in a loss of information if the teacher is not focused on specific behavioral occurrences made by the student.

The fourth and fifth steps to developing a home note, as described in Vannest, Burke, Saubre et al. (2011), are reliability checks and communication between the home and school. These authors recommend reliability checks on at least 20% of the observations conducted with the home note to provide confidence for the data gathered through the home note. Finally, communication between the home and the school differentiates a home note from other ratings of student's behaviors, such as DBRs (Vannest et al., 2010). Communication and collaboration between the school and home has been shown to promote adaptive, academic, behavioral, and social skills with students and is viewed as best practice when implementing interventions within the school (Blechman et al., 1981; Galloway & Sheridan, 1994; National Association of School Psychologists, 2012; Sheridan, Bovaird, Glover, Garbacz, & Witte, 2012). More specifically, Cox (2005) reported that home-school collaboration interventions, such as home notes, are effective in helping achieve desired school outcomes for children including "changes in academic performance and school related behavior" (p. 473).

Furthering the importance of home-school communication, Fabiano et al. (2010) examined the effects of behavioral consultation with a home note compared to a "business as usual" control condition across 63 participants. The researchers examined the amount of rule violations, perception of problem behaviors, perception of academic achievement, and perception of IEP goal attainment. With moderate completion and return rates from teachers and parents, the researchers found that participants in the home note with a consultation condition improved significantly when compared to the

"business as usual" condition. Participants in the intervention condition were also rated as having improved classroom behaviors, more academically productive and more likely to attain IEP goals. Because superior effects were found with a condition that utilized consultation over a condition that simply continued to provide specialized instruction, such communication is critical when designing a home note intervention.

Time consideration for implementation and the effectiveness of interventions have been found to be key factors associated with how acceptable interventions will be to teachers (Witt, Martens, & Elliot, 1984). In a recent study, 64% of teachers reported using some form of a home note (Chafouleas, Riley-Tillman, & Sassu, 2006). These results were found to be consistent across many different demographics of teachers, indicating that some form of a home note is used in a variety of educational settings. Moreover, teachers indicated that they believe a home note could be used to promote positive behaviors and decrease negative behaviors while being a time-efficient intervention and progress-monitoring system.

The majority of home note research has focused on providing interventions to individual students in their classroom to promote positive behaviors for academic success (Volpe & Fabiano, 2013). Because behaviors are being consistently recorded over time, home notes can also be used as a progress-monitoring tool while promoting positive behaviors in the classroom. Vannest, Burke, Payne, Davis, and Soares (2011) used an electronic version of a home note to monitor IEP-related goals for students based on individualized goals. These researchers found that using such a progress-monitoring tool was effective in monitoring behavior over time while implementing interventions specifically to reduce problem behaviors in the classroom. They noted that through this

tool, teachers were more likely to increase their instructional time and reduce paperwork in special education settings.

Although home notes have been shown to increase positive behaviors within the classroom (Vannest et al., 2010) and promote home-school collaboration (Galloway & Sheridan, 1994), issues may present when using a home note for intervention or progress monitoring purposes. These issues arise from fidelity of the intervention at the student, teacher, and parent level. These issues may present because of the lack of training (Riley-Tillman, Chafouleas, Briesch et al., 2008) or methodological differences in the creation of the home note (Volpe & Fabiano, 2013). Such issues will be addressed in greater detail later. Although concerns are notable, the U.S. Department of Education (2004) listed the home note intervention as a cornerstone intervention for students with attention difficulties.

Behavior Home Notes

Atkenson and Forehand (1979) conducted one of the earliest known reviews of home note interventions. Although never referring to the interventions by a specific name, they reviewed interventions that had a school-based rating system of behaviors that incorporated a communication tool between the home and the school (usually in the form of a note) and a home-based reinforcement system. All interventions included in the study were designed to modify disruptive or academic behaviors in the classroom. Including 21 studies in their review, these researchers found that such an intervention strategy was effective with a wide variety of students with both disruptive and academic behaviors. They also found that communication between the home and the school was

often on a daily basis. These authors analyzed each study's methodology and found that only 63% of the included studies had adequate designs (ABA, multiple-baseline, or group design with appropriate control group) and that contingent reinforcement systems were necessary for change in behaviors. Although using a small amount of studies, Atkenson and Forehand (1979) provided an initial review of the home note literature that sparked interest with this intervention.

Smith, Williams, and McLaughlin (1983) built upon the previous review by giving considerations for home note interventions and directions for future research. The authors discussed the variations with home note interventions, the populations for which previous interventions have been used, the cost-effectiveness of the intervention, and consumer satisfaction. The researchers found a wide variety of behaviors for which the intervention was already being used and the intervention was being implemented with populations ranging from kindergarten to high school that also included minority students. Teachers in previous studies found the home note intervention to be a cost-effective intervention in terms of time and money, and consumer satisfaction ratings from parents, teacher, and students with the use of the intervention were promising. Since these reviews, other reviews of the home note literature have been created to give a practical sense to educators (Jenson & Reavis, 1996; Kelley, 1990; Kelley & Jurbergs, 2009; Volpe & Fabiano, 2013).

Vannest et al. (2010) completed the most recent meta-analytic review on the effectiveness of home notes to promote positive classroom behaviors. They included 17 published studies between 1970 and 2007, which included a total of 107 participants. They included only studies in which the primary measure was behavior, excluding

studies that investigated primarily academic performance. They found that behavioral home notes resulted in an improvement rate difference (IRD) of 0.61, indicating that the use of the intervention resulted in a 61% improvement from baseline to intervention phases in reducing problematic behaviors and increasing positive behaviors. They found no significant difference in the age of the student or the target behavior, indicating that home notes are effective for students at both the primary and secondary levels, and are effective for a wide variety of behaviors.

Vannest et al. (2010) also found that higher home-school collaboration within a home note intervention resulted in greater improvement in positive behaviors. Studies considered to have a high degree of home-school collaboration produced a mean IRD of 0.90. Comparatively, there was a statistically significant difference between these high degree studies and studies that had a medium degree (IRD = 0.60) or a low degree (IRD = 0.48) of collaboration.

Similar to Atkenson and Forehand's (1979) review, Vannest et al. (2010) found that only 53% of the studies included in the review were considered to have medium to high methodological quality. When analyzing differences between the quality of the study design, these researchers found a mean IRD of low-quality studies to be 0.56, medium quality to be 0.63, high quality at 0.70, and a very high quality at 0.61. These differences do not reflect a statistically significant difference, indicating that even studies with low-quality rigor can be effective at decreasing problematic behaviors and increasing positive behaviors.

As noted in the Vannest et al. (2010) meta-analysis, home notes can be used for a variety of behavioral concerns with students. Specifically, Jurbergs et al. (2007)

examined the effects of home notes to increase attention in 6 students with attention difficulties. The researchers used a similar home note for each participant, but a different criterion was established for each participant as to what constituted a "good note." Throughout the study, the home notes were renegotiated to reduce satiation of possible rewards and to increase the criterion to continue shaping the participants' performance. Their research concluded that the use of the home note intervention produced a statistically significant improvement in on-task percentage across the participants. They also found that withdrawing treatment resulted in a statistically significant decrease in on-task behavior for all participants. Moreover, students showed a significant increase in accuracy and completion of classwork, indicating positive academic effects when specifically targeting on-task behaviors.

McGoey, Prodan, and Condit (2007) used a home note intervention to reduce disruptive behaviors with 2 children in kindergarten. They defined disruptive behaviors as "negative social engagement, disobeying established rules, and tantrumming" (p. 368). The researchers used a single subject reversal design to examine the effectiveness of the home note intervention. Along with the home note intervention, they also included a self-evaluation component designed to encourage the participants to rate their behaviors. The researchers found the home note intervention package was an effective intervention at decreasing disruptive behaviors. Both children in the study experienced high levels of disruptive behaviors (33% and 20%) across observation intervals before the intervention was introduced but reduced these behaviors to less than 10% across observations when the intervention was implemented. Removing the home note intervention resulted in increased disruptive behaviors while reusing the same home note intervention resulted in

a similar level of decreased disruptive behaviors as during the first intervention phase.

Further investigation by Owens et al. (2012) examined the incremental benefits of a home note intervention over time for students with disruptive behaviors. They examined the effects of a home note intervention with 66 participants using a quantitative behavioral home note. The program facilitators and the teachers collaborated to determine two to four specific behaviors to monitor for each participant. Results indicated that 72% of the sample had all of their target behaviors classified as "improved" by the end of the study and an additional 20% of the sample had at least one target behavior classified as "improved." The researchers noted that the effects of the intervention tended to be most impactful at the beginning of the intervention and tended to plateau at the 3rd month of the intervention, noting that for about half of the participants, there were no longer any more incremental benefits to the intervention. Analyzing this finding more closely, participants who did not improve at this time merely were not achieving a more difficult criterion after having met earlier goals.

Home note interventions are an easy-to-implement, time-efficient way to effectively increase positive classroom behaviors. The intervention can be used with students in regular or special education settings, elementary or secondary levels, and can reduce a range of problematic behaviors (Vannest et al., 2010). Specifically, home notes have been shown to increase on-task behaviors in students with attention difficulties (Jurbergs et al., 2007), decrease disruptive behaviors (McGoey et al., 2007; Owens et al., 2012), and promote positive classroom behaviors and goal attainment through collaboration between the home and school environments (Fabiano et al., 2010). With such supportive research, it is logical that a home note intervention be considered an

effective intervention strategy for teachers to produce positive classroom behavior.

Academic Home Notes

A variety of classroom behaviors have been modified through the use of a home note. While behavior reduction is a very important factor for teachers and parents (Vannest et al., 2010), academic productivity, and more specifically work completion and accuracy, should be considered when implementing behavioral interventions (Kelley, 1990; Vannest, Burke, Saubre et al., 2011). An early study by Blechman et al. (1981) examined 335 children in 17 participating classrooms and compared the academic effects of either using a family problem solving model or a home note when compared to a control group. Significant decreases in classroom scatter were found for both treatment groups, indicating that the home note intervention can be an effective intervention for the management of classroom materials. The researchers also found that the accuracy of the participants' math work was only significantly different in the family-problem-solving condition, which was the only condition to not result in a decrease in accuracy across participants. These results indicate that collaboration between the home and the school is vital for generalization and maintenance of academic skills.

Galloway and Sheridan (1994) studied the effects of a home note with a conjoint-behavioral consultation component versus a home note as usual condition with 6 participants. Placing 3 participants in each treatment group, the researchers looked at math accuracy and math completion rates between the groups. Results indicated that 5 of the 6 participants in the study improved their math completion rate and accuracy and their performance was comparable to other students in the classroom. The researchers also

found that the group of participants that received the conjoint-behavioral consultation component with the home note intervention resulted in less variability, or more consistency, in their academic achievement and this was maintained during a follow-up period.

In the early 1900s, many viewed homework as too time consuming for students (Bryan & Sullivan-Burstein, 1998), but research has shown large positive effects of homework on students' academic achievement (Cooper, Robinson, & Patall, 2006) and has since become a staple of academics. Dougherty and Dougherty (1977) studied the effects of a home note intervention on homework completion rates of fourth-grade students. With parents and students reviewing daily home notes and with minimal teacher time and effort to complete the home note, the rate of students not completing their homework reduced from 34.7% to less than 17%.

While much of the body of the home note research has focused on behavioral concerns within the classroom, home notes have been shown to improve academic achievement within the classroom and at home. Academic behaviors such as percentage of work completed and accuracy are relatively easy to interpret for parents and can be monitored quickly and objectively by teachers (Kelley, 1990). Because of the positive effects of home notes with academic achievement and also with homework, it is logical to use a home note intervention when both behavioral and academic needs are present (Vannest, Burke, Saubre et al., 2011).

Home Notes Combining Both Behavioral and Academic Components

Consensus has grown in recent years for proactively identifying students who are at-risk for behavioral and academic issues (Glover & Albers, 2007) rather than providing a "wait-to-fail" model that allows students to fall significantly behind their peers. Academically, curriculum-based measurement probes and benchmark standards help educators make informed decisions about students who may be at-risk for developing academic issues. While educators find this information useful in making informed decisions, data probes do not indicate how a student is performing in their daily academics. Behaviorally, universal screeners such as office disciplinary referrals (ODRs; McIntosh, Frank, & Spaulding, 2010) and multiple-gated screening procedures (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007) have been two school-wide approaches to identify individual students at-risk for behavioral concerns, but both methods have distinct limitations. ODRs tend to identify students based on a narrow set of behaviors that would result in an ODR while multiple-gated screening procedures provide a limited amount of treatment and progress monitoring information from such assessments.

Home notes provide an opportunity for educators to monitor both behaviors and academics daily with minimal disruption to classroom activities (Volpe & Fabiano, 2013). They also provide the opportunity for educators to track progress over time and make informed decisions for behavioral and academic interventions (Fabiano et al., 2010; Vannest, Burke, Payne et al., 2011). Moreover, as reviewed above, collaboration between the home and the school provides an additive factor for promoting positive behaviors

within the school and at home (Galloway & Sheridan, 1994; Sheridan et al., 2012). Such considerations suggest that when a need is warranted, both academic and behavioral concerns can be monitored and positively impacted through a home note intervention.

Implementation

Volpe and Fabiano (2013) recognized that problems with the creation and implementation of a home note might occur, suggesting that when working with parents, educators, and students, issues may arise that may reduce the effectiveness of a home note intervention. Meta-analytic research (Vannest et al., 2010) identified four keys to developing a home note intervention. First, having a high level of communication and collaboration between the home and school is important for promoting and generalizing behaviors. These researchers reported that when collaboration was high between the home and school, the improvement rate from baseline to intervention phases in behavioral interventions was 90% compared to only 48% when this collaboration was low. Collaborating with parents has been further suggested in the research literature to promote and generalize positive behaviors (Galloway & Sheridan, 1994; Sheridan et al., 2012).

When students advance from elementary school into secondary schools, increasing to multiple teachers throughout the day, collaborating with all needed parties to promote greater generalization is necessary (Fabiano, 2014). Even with no collaboration, the effects of the home note intervention can still result in decreased negative behaviors within the classroom (Vannest, Burke, Saubre et al., 2011), but research indicates such collaboration is considered best practice in education (National

Association of School Psychologists, 2012).

Second, it is important to monitor behaviors over long periods of time. Increasing the use of a home note intervention over several hours or the entire day may promote generalization and can lead to an increased improvement rate. Vannest et al. (2010) found that when a home note intervention was used for an hour or less in a school day, there was an average improvement rate of 51% from baseline to intervention phases. When using the intervention for greater than an hour, there was an average improvement rate of 87%.

Third, because a wide range of behaviors can be positively affected by a home note intervention, these researchers suggested monitoring multiple behaviors through the intervention. Lastly, qualitative ratings should be used when constructing a home note. As mentioned above, qualitative ratings, such as DBRs, have been shown to promote positive behaviors in the classroom and allow for accurate ratings of behaviors without consuming valuable resources when compared to other behavioral measures such as SDOs and quantitative ratings (Chafouleas et al., 2005; Riley-Tillman, Chafouleas, Briesch et al., 2008).

Home Note Construction

When designing a home note intervention, it is important to consider how to construct items included in the home note. Riley-Tillman, Chafouleas, Christ, Briesch, and LeBel (2009) examined the effects of item wording and behavioral specificity in regards to DBRs. These researchers randomly assigned 145 undergraduate students to four distinct groups and examined the rating accuracy with specific or broad DBRs and

positive or negative DBRs. Global descriptions of behaviors resulted in significantly more accurate ratings on the DBRs while positively worded behaviors resulted in significantly more accurate ratings with only an academic engagement DBR. With this research, Chafouleas (2013) suggested the use of three behaviors to be monitored: "Academically Engaged," "Respectful," and "Non-Disruptive." Moreover, Chafouleas et al. (2006) found home notes that included a section for comments was more accepted by teachers, indicating this as an optional, yet important component to consider.

Training

Knowledge and fidelity of implementation by educators is a key component of a home note intervention and may result in problems if done incorrectly. Schlientz, Riley-Tillman, Briesch, Walcott, and Chafouleas (2009) provided preliminary evidence of the impact of training with DBR use. These researchers examined the effects of DBR training in regards to the accuracy of DBRs with 59 undergraduate students. The participants in the training group were significantly more accurate and less variable in their DBRs when compared to a nontraining group. They also found that participants who were not trained in DBR use overestimated the duration of problem behaviors, which resulted in inaccurate ratings. These researchers also noted that the lack of training may result in more bias among raters who may already have a negative perception of the individuals they are rating.

Christ, Nelson, Van Norman, Chafouleas, and Riley-Tillman (2013) studied the accuracy of interpretations from DBR results. The researchers had 29 graduate students and 5 undergraduate students, with minimal exposure to visual analysis, view data

gathered from three different behaviors across videos that were analyzed with DBRs. The participants were asked to analyze trends within these data. The researchers found that participants were able to accurately interpret trends based on visual analysis in 80% of the graphs. The researchers noted that participants were able to correctly identify a lack of a trend 94% of the time, a positive trend 72% of the time, and a negative trend 65% of the time.

Riley-Tillman, Chafouleas, Briesch et al. (2008) reported that among school psychologists surveyed, only about half the participants noted moderate or intensive training (56% and 58%) in DBR use across two studies. They noted that higher levels of reported training resulted in higher levels of reported use of the intervention. Albeit with low levels of reported training, Schumaker, Hovell, and Sherman (1977) reported that counselors using a manualized version of a home note intervention could be successfully implemented and would result in student improvements.

Research has also indicated that teachers can successfully implement the home note intervention over the course of an entire year, indicating that with training, the home note intervention is a sustainable intervention (Vujonic, Fabiano, Pariseau, & Naylor, 2013). These researchers found adherence to guidelines was relatively stable across time but noted that problems arose when implementation of the intervention did not occur. They found that low implementers of the intervention tended to be low implementers throughout the study, suggesting that, although this intervention has been shown to be acceptable to educators (Chafouleas et al., 2006; Riley-Tillman, Chafouleas, Briesch et al., 2008), buy-in from stakeholders and training is needed during implementation.

Because a key component of a home note is the collaboration between the home

and the school, it is important that training of a home note intervention be conducted with parents who will help implement the intervention. Grady (2013) examined the effects of incorporating a parental behavioral training with 4 participants. Over three training periods, the researcher taught the participants' parents consistency in responding to the ratings on the home note and the appropriate delivery of praise and punishment. Using the Nonoverlap of All Pairs (NAP) statistic, the researcher found medium to large effect sizes for all participants in decreasing their disruptive behaviors and improving academic engagement on DBR ratings when compared to a home note as usual condition.

Furthering the importance of parent training, Clarke et al. (2013) examined the effects of parental attendance and adherence to intervention guidelines, with a family-school intervention, on a number of parent and student characteristics. They found that the quality of parents' engagement, as measured by completion of homework assignments by parents, was a much stronger predictor of intervention response when compared to parental attendance during intervention sessions. Moreover, the researchers found that parental attendance in training sessions had limited effects on treatment outcomes. They noted that with high engagement from parents, positive effects were seen with parental self-efficacy, the parent-teacher relationships, parenting through positive involvement, and their child's homework rates.

Participant Refusal

Volpe and Fabiano (2013) suggested that student behaviors might negatively impact the effectiveness of a home note intervention. These behaviors may include not wanting to participate in the intervention, losing/not delivering the home note, and

forging fake notes. Having students take part in the reward selection process is one way to incentivize them into wanting to be active participants in the intervention (McGoey et al., 2007; Schumaker et al., 1977). Consistently monitoring of goals should also occur to reduce the satiation of these rewards (Owens et al., 2012). Jenson and Reavis (1996) recommended using motivational components such as a Reward Spinner and Mystery Motivator. Moreover, electronic versions of a home note intervention have been created to help reduce the problems of forging, losing, or not delivering the home note to different parties (Gable, 2002; Williams, Noell, Jones, & Gansle, 2012; Vannest, Burke, Payne et al., 2011).

Controversies

Response Cost

A methodological controversy exists in whether to include a response cost component within a home note. A response cost is an intervention component that serves as an aversive consequence designed to promote effective classroom management (Kelley & McCain, 1995). These can range from simply crossing off smiley faces to taking away rewards and privileges (Volpe & Fabiano, 2013). McCain and Kelley (1994) showed that the use of a response cost system within a home note had positive effects for 3 children referred for serious levels of disruptive behaviors when compared to a home note with no response cost intervention. Kelley and McCain (1995) also compared the use of a home note with and without a response cost component. With 5 participants, these researchers found superior performance in the participants who received any type of intervention while there were additive effects for the participants who had a response cost

component within their home note. Both the home note with and without a response cost component were rated as an acceptable intervention by teachers and parents, but parents, as a whole, rated both conditions as more acceptable and preferred the home note with the response cost component.

In contrast, Jurbergs et al. (2007) showed that results were equivalent across home notes with and without a response cost component with 6 elementary children with attention difficulties. These researchers found that parents of these participants still preferred the home note with the response cost component compared to the home note without a response cost component. While research is still inconclusive on the additive effects of a response cost component, including such a component may provide additive support and consistency from parents.

Rewards

Shumaker et al. (1977) examined whether praise and teacher feedback alone could promote positive classroom behaviors with 2 participants. One of the participants did not bring back the home note and the other's performance began to trend towards baseline behaviors as the intervention persisted. When comparing these participants to those who had received contingent rewards, the latter maintained improvements over time. The researchers suggested that contingent privileges are an important component to a home note intervention.

A methodological controversy is where these rewards should be given. Rewards can be provided in two locations: at home or at school. Johnson (2008) conducted an initial comparison of the differential effects of using a home- or school-based

reinforcement system in conjunction with a home note intervention. The researcher used a counterbalanced multiple treatment design to compare the effectiveness of each intervention phase across 4 participants. The researcher was interested in the effectiveness of the intervention on assignment completion and assignment accuracy. One participant was not included in the results discussion because after meeting initial inclusion for the study, their performance increased dramatically throughout baseline phase. Results indicated that for the remaining participants, the grand mean effect size for assignment completion was 0.37 in the school-based condition and 0.00 in the home-based condition. Assignment accuracy showed similar results with the school-based condition having an effect size of 0.68 and the home-based condition having an effect size of 0.22. The researcher also analyzed the acceptability of each intervention component and found similar ratings between both components among teachers, parents, and students. Although results from Johnson (2008) are promising, these should be considered with caution due to a small sample size included in the study.

Home-based reward systems, for a variety or reasons, may not be practical, feasible, or consistently possible (Volpe & Fabiano, 2013). Because the research recommends that reward systems be in place for positive and consistent results to occur (Schumaker et al., 1977), school-based reward systems may be put into place when home-based rewards are not possible. Todd, Campbell, Meyer, and Horner (2008) implemented a check-in/check-out program, similar to a home note intervention, with 4 elementary-age participants to decrease problem behaviors. The participants initially checked in with a school staff member and were required to check out with their teachers three times per day. The participants were monitored throughout the day using a rating

system similar to ones found in a home note intervention and were rewarded through a token economy system. Compared to the baseline phase, the participants' problematic behaviors decreased over time and were less variable with the use of the intervention, indicating that such a system can be implemented without a reward system being maintained by the home.

In contrast to Johnson (2008), several researchers have noted positive behavioral and academic improvements with a home-based reward system within a home note intervention (Jurbergs et al., 2007; LeBel et al., 2012; McGoey et al., 2007; Schumaker et al., 1977). Specifically, Bailey, Wolf, and Phillips (1970) used a single-subject withdrawal design study and found that sending a home note to parents who provided contingent rewards improved the classroom behaviors of 5 students over a summer academic program. These results were generalized to a public school setting in a later experiment.

A home-based reward system may allow for generalization of skills across settings and may lead to more acceptable ratings from parents. Budd, Lebowitz, Riner, Mindell, and Goldfarb (1981) suggested that including a home component, such as a reward/response cost system, to behavioral interventions may relieve some of the burden from educators to be responsible for the entire treatment program and may promote generalization of treatment effects. Volpe and Fabiano (2013) also suggested using a home-based reinforcement component when possible to promote collaboration between the home and the school.

As noted previously, it is important to provide communication between the home and the school and reinforcement of behavioral expectations is needed with a home note

intervention for best results. With contrasting research though, it is unclear at this time whether a home note with a home- or school-based reinforcement system will lead to greater improvements in positive classroom behaviors.

Use of Electronics in Academics

Technology integration is inevitable. Affordability of such technology only supports such integration into the classroom. Such change is not uncommon though; change has always been occurring in schools as educators have found new ways to teach students how to learn. Collins and Halversont (2010) argue that our school systems need to adapt to the growing desire to integrate technology into the schools. These authors state that schools have gone through a revolution previously, from schools consisting of apprenticeships to the emergence of public schooling. Now, they argue, education is transforming from what was thought of as just school, to a learning process that heavily integrates technology.

In a recent New York Times article, a pilot program in New York purchased more than $56,000 in iPads and applications to support learning within classrooms (Hu, 2011). While numerous applications of technology exist to support academic growth in our lives, many of these applications have little or no research supporting their use (Hasselbring, Lott, & Zydney, 2006). Although such use may engage students in their education, opponents of such spending argue that technology within the classroom needs to have empirical evidence to support their use.

Li and Ma (2010) conducted a meta-analysis examining the effects of computer technology (CT) on mathematics education. The authors recognized the need for such a

review due to previous reviews combining many academic areas and because of the ever-expanding and updated use of technology in many facets of our lives. Moreover, the authors recognized that the presence of CT hardware (calculators, formulas, etc.) does not consistently produce positive school outcomes in mathematics education and such instruments were typically used in previous research. Such hardware was not considered in their review as they analyzed the effects of computer software and programs that helped students learn mathematics. Upon analyzing 85 studies, the authors found a moderate effect size of 0.71 for the use of CT with mathematics education. This was statistically significant from the nonuse of such technology.

Shayne (2008) evaluated parental perceptions of using online-access to examine their student's grades and homework, and how this may affect parent-teacher and student-parent communication. Using a checklist survey with open-ended questions, the researchers found that parents favor using online access as a tool to be used in conjunction with regular communication between the home and school. It was reported that parents liked the instant access to information and online access helped improve parent-student and parent-teacher communication.

Such research is present for assisting students to learn mathematical concepts, but research examining the effects of integrating technology into behavioral interventions is scarce and narrow in interest. Studies have looked at integrating technology into behavioral interventions (Goldsmith & LeBlanc, 2004; Ritterband, Gonder-Frederick, Cox, Clifton, West, & Borowitz, 2003; Sansosti & Powell-Smith, 2008), but much of this research is for adults or students with autism spectrum disorders.

Gable (2002) conducted what is thought to be the first research study to

incorporate Internet-based resources into a home note intervention. The researcher examined the effects of sending home note information, via email, directly to the parents of 3 high school students. They used a multiple-baseline single-subject research design to determine the effects of this intervention. The researcher examined whether this method of communication could decrease the disruptive behaviors of the participants and if this method of communication was acceptable to the parents involved in the study. To accomplish this, the researcher calculated the percentage of appropriate intervals of each target behavior, as rated by teachers, for each participant and sent this information, via email, to each participant's parent. The researcher found that the intervention was effective for decreasing disruptive behaviors for all participants according to direct observations. The researcher also found high parental acceptability of the intervention based on a social validity questionnaire.

Williams et al. (2012) conducted the other known study to incorporate an electronic version of a home note. These researchers examined the effects of an electronic version of a home note to reduce disruptive classroom behaviors with 46 participants. These researchers defined disruptive behaviors as "talking out and making noise, out of seat, and touching others" (p. 274). The researchers also looked at ratings on common behavioral questionnaires and teacher social validity ratings. Throughout the intervention, the parent of each participant was required to email a fillable home note to each teacher and the teachers rated each participant based on their global perception of how well the participant did in class that day. Based on direct observations, the researchers found that the intervention was effective in decreasing problematic behavior in the classroom when compared to a delayed-treatment control group. They also found that providing parents

with performance feedback resulted in no significant difference in their participant's behaviors, there were no statistical differences on any behavioral questionnaire, and only moderate teacher acceptability ratings of the intervention.

Initial research on an electronic version of a home note is promising, but further investigation of the use of this intervention is warranted. First, Gable (2002) examined the effects of their intervention through direct observations of 3 participants, but these researchers looked at decreasing disruptive behaviors in the classroom. Moreover, Williams et al. (2013) did not directly examine the effects of the intervention with on-task classroom behaviors and only looked at three systematic direct observation probes over a 3-week intervention period that occurred at various times of the day. Because of the probability of reactivity with independent observers, these results should be viewed with caution and future research should address such concerns. It will be important for future research to evaluate behaviors more consistently and also evaluate if teachers are able to provide accurate rating with the use of an electronic version of a home note.

Secondly, these studies did not examine the effects of the intervention on academic performance. While decreasing the disruptive behaviors in the classroom is important, it will also be valuable to examine if an electronic version of a home note can increase academic productivity for students. Moreover, with interventions that include parental collaboration and support, teachers' efforts to complete the intervention, and students' involvement within the intervention, it will be important to consider the acceptability of the intervention from the parent's, teacher's, and student's perspectives. Gable (2002) used a modified version of the IRP-15 (Martens, Witt, Elliot, & Darveaux, 1985) to find high parental acceptability but did not examine others' perspectives.

Williams et al. (2013) found moderate teacher acceptability but did not examine parental or participant acceptability of their intervention. Future research should consider all of these factors to further examine the utility of an electronic version of a home note.

In regards to electronic version of a home note, two other resources should be noted. While Intervention Central offers the ability to create a home note, they do not allow for electronic versions of a home note to be produced. The only other known electronic version of a home note is the *Electronic Daily Behavior Report Card* (Vannest and Burke, 2006). While this application is available for public use, no known research has been conducted examining the effectiveness of this program.

On-Task Behavior

Definitions of on-task behavior have waivered throughout the literature but it is clear that recent literature includes not only observable behaviors but also engagement in, and completion of, classroom activities. Ducharme and Shecter (2011) described a student being on-task "when they are actively engaged in classroom activities that facilitate learning, and not engaged in behaviors that detract from learning" (p. 266). Ponitz et al. (2009) described engagement as "correspondence between a child's observable behavior and the demands of the situation, including attending to and completing tasks responsibly, following rules and instructions, persisting in the face of difficulty, and exercising control" (p. 104). Of specific behaviors, maintaining eye contact with the classroom instructor and performing requested tasks in a timely manner have been identified as key behaviors of attending or being on-task (Jenson, Rhode, & Reavis, 1995; Reavis, Kukic, Jenson, Morgan, Andrews, & Fister, 1996; Rhode et al.,

2010).

A “keystone” behavior is described as a “relatively circumscribed target behavior that is foundational to a range of skills and related to other responses such that, when modified, can have a substantial positive influence on those other responses” (Ducharme & Shecter, 2011, p. 261). On-task and engaged behaviors constitute “keystone” behaviors because of their substantial impact on the learning process of the student. Masten et al. (2005) studied the influence of externalizing problem behaviors, such as off-task behaviors, and the long-term effects they have on students. They found that such problem behaviors undermine academic competence in students at a young age and these effects can carry on into adolescence and even develop into internalizing problems into adulthood. Moreover, Kelley (1990) stated: “few children can complete all their work accurately and have time to misbehave” (p. 15). Proactive interventions that target these specific keystone behaviors are necessary to promote academic achievement, reduce disruptive behaviors, and promote generalization of these skills to other areas of the student’s life (Ducharme & Shecter, 2011).

Such connections between behaviors and nonacademic skills that affect the academic success of a student are referred to as “academic enablers” (DiPerna & Elliot, 2002). Academic enablers are defined as “attitudes and behaviors that allow a student to participate in, and ultimately benefit from, academic instruction in the classroom” (p. 294). By promoting such academic enablers as attending skills and on-task behaviors, a student’s ability to achieve academically will also be positively influenced (Brigman, Lane, Switzer, Lane, & Lawrence, 1999; DiPerna, Volpe, & Elliot, 2001).

It is apparent that with many stressors requiring students to achieve academic

success and growth, interventions to promote students' ability to remain actively engaged in appropriate classroom activities are paramount. An intervention that helps promote students' positive behaviors in the classroom and has produced positive effects with academic success is a home note (Blechman et al., 1981).

Purpose of the Study

Off-task behaviors are among the most frequently reported problematic behaviors that occur in the classroom (Bowen, Jenson, & Clark, 2004). Sun and Shrek (2012) reported that teachers indicated that "non-attentiveness/daydreaming/idleness" affects the student learning process, which not only impacts the effectiveness of instruction for that student, but also the classroom as a whole. For students exhibiting such behaviors, it is important that research-based interventions be implemented early to help students manage their behaviors. Home notes have been shown to be effective at increasing students' attending abilities, decreasing disruptive behaviors, and improving academic performance. They are viewed as an acceptable intervention by educators and parents and promote collaboration between the home and school environments. However, with the increase integration of technology within the classroom, it is logical that behavioral interventions such as home notes be evaluated when integrating technology.

With paper versions of a home note, much of the responsibility of home notes relies on the student to deliver the home note to parents and teachers. This can create issues of the students losing the home note, refusing to deliver a "negative" home note (Volpe & Fabiano, 2013), or forgery of a "negative note" into a "positive note" (Jenson & Reavis, 1996). An electronic version of a home note removes this responsibility from

the student while keeping the foundational components of a home note.

The Electronic Home Note Intervention Package uses research-based interventions while reducing the responsibility of the student to deliver the home note to different parties. It uses an Internet-based resource in Google Forms to automatically deliver the Electronic Home Note data to multiple parties and provides an easy form of communication between the school and home. The Electronic Home Note Intervention Package also allows educators and parents to track the progress of a student's classroom engagement through multiple behaviors. However, the effectiveness and acceptability of the Electronic Home Note Intervention Package has yet to be evaluated.

Williams et al. (2012) and Gable (2002) evaluated electronic versions of a home note but primarily looked at disruptive behaviors through only a few direct observations and did not examine any academic benefits or behaviors directly related to academic engagement such as on-task rates. Moreover, these researchers did not examine all involved parties' acceptability of their interventions or the accuracy of teachers' ratings through their interventions.

Therefore, the purpose of this study is to be the first to evaluate the effectiveness of an electronic version of a home note intervention for increasing rates of on-task behavior and enhancing academic achievement. This will occur by implementing the Electronic Home Note Intervention Package in two separate school research sites. It will compare teacher's ratings of on-task behaviors with systematic direct observations to evaluate the agreement of behavioral reporting between the teachers and the external observers. It will also examine the acceptability of the Electronic Home Note Intervention Package through the teachers', parents', and students' ratings.

Research Questions

1. Will rates of on-task behavior for participants be higher than baseline on-task rates after receiving the Electronic Home Note Intervention Package as measured through direct observation?
    a. Response discrepancy observation
2. Will rates of on-task behavior of participants after receiving the Electronic Home Note Intervention Package be maintained at a 2-week follow-up as measured by direct observation? *(Originally Question 7 in the dissertation proposal)*
    a. Response discrepancy observation
3. Will rates of on-task behavior for participants after receiving the Electronic Home Note Intervention Package be similar to their peers' on-task behaviors who have not received the Electronic Home Note Intervention Package as measured by response discrepancy observations?
    a. Response discrepancy observation
4. Will rates of problems completed on individualized curriculum-based math worksheets be higher for participants than baseline problem completion after receiving the Electronic Home Note Intervention Package?
    a. Individualized curriculum-based math worksheets (math facts worksheets individualized to each participant's math ability level)
5. Will rates of problems completed correctly on the individualized curriculum-based math worksheets be higher than baseline problems completed correctly after receiving the Electronic Home Note Intervention Package?
    a. Individualized curriculum-based math worksheets (math facts worksheets

individualized to each participant's math ability level)

6. Are teachers able to accurately report on-task behavior with the Electronic Home Note when compared to an independent observer?
    a. Teacher rating
    b. Response discrepancy observation
7. Do parents consistently review data from the Electronic Home Note with their student participant?
    a. Percentage of reply emails from parents to the researcher
8. Will participants report positive ratings on the modified Children's Intervention Rating Scale regarding participation in the intervention as measured by mean responses on a six-point Likert scale?
    a. The Children's Intervention Rating Scale
9. Will parents report positive ratings on the Intervention Rating Scale regarding participation in the intervention as measured by mean responses on a six-point Likert scale?
    a. Intervention Rating Scale
10. Will teachers report positive ratings on the Intervention Rating Scale regarding participation in the intervention as measured by mean responses on a six-point Likert scale?
    a. Intervention Rating Scale
11. Will participants indicate that the office reinforcement sessions they take part in are enjoyable and beneficial to them as measured by their mean responses on the

Fun ‘O’ Meter?

a. Fun ‘O’ Meter

METHODS

Participants and Research Sites

Participants

Prior to the initiation of any research procedures, written Institutional Review Board approval was sought from the participating university and the school district where the research took place.

Inclusion Criteria:

1. Participants' primary language was English
2. Participants could be between the third and sixth grades
3. The participant pool could contain both male and female participants
4. Participants could receive math instruction in their regular education or special education settings
    a. If a participant was receiving special education services, all independent observations and curriculum-based math probes took place in their regular education math classroom
5. Participants were nominated by their regular education teacher based on two criteria:
    a. Participants exhibited elevated rates of off-task behavior as compared to their peers
    b. Participants did not complete similar amounts of problems and these

problems completed were not completed with similar levels of accuracy as compared to their peers on math assignments

6. Participants had the ability to complete math assignments as indicated by achieving "Advanced," "Proficient," or "Partially Proficient" ratings on their most current Acuity Predictive Assessment
7. Participants were observed to be on-task approximately 60% of the intervals observed or less across three independent observation periods in their classrooms

Teachers at the two school research sites were asked to assist in the identification of 4 participants between the third and sixth grades who displayed elevated rates of off-task behavior as compared to their peers. Progress monitoring data in mathematics through Acuity Predictive Assessments were reviewed for each nominated participant to determine if they met criteria for inclusion in the study. Acuity Predictive Assessments are a form of curriculum-based assessments designed to analyze students' academic needs based on assessment of students' math abilities (CTB/McGraw-Hill, 2010). Each participant's most current math assessment data from their Acuity Predictive Assessment must have indicated either an "Advanced," "Proficient," or "Partially Proficient" rating for inclusion in the study. An "Unsatisfactory" rating would indicate that based on the student's performance on this measure, the student is likely to achieve "unsatisfactory" levels on mandated state exams (CTB/McGraw-Hill, 2010).

Three of the participants met this initial criterion for inclusion in the study. Participant 2 did not meet this initial criterion, but following a review of his Acuity Predictive Assessment data, he was included in the study because he was accurate on the problems he completed, but he did not attempt most of the problems on the assessment.

The parents of the nominated participants were contacted to gain permission to observe their child for possible inclusion in this study. Once permission was received, the researcher and a volunteer educator conducted three 15-minute independent observations using a whole-interval response discrepancy format to confirm that the nominated participants were appropriate candidates for this study. To participate in the study, each participant needed to be on-task approximately 60% of the observation intervals or less during independent seatwork time in their classrooms. All nominated participants met this inclusion criterion and were included in the study. These initial observations served as a baseline for the participants in the study. During this time, the researcher asked each participating teacher to complete the Behavior Assessment System for Children – 2nd Edition – Teacher Form (BASC-2-TF) to obtain further behavioral information about each participant (Reynolds & Kamphaus, 2004).

Two participants were selected for participation in each of the 2 school research sites involved in the study for a total of 4 participants. For the purposes of the study, the 2 school research sites were labeled Site 1 and Site 2, respectively. The participants in the study are referred to as Participants 1 through 4. Participants 1 and 2 attended school at Site 1. Participants 3 and 4 attended school at Site 2. The participant pool consisted of 1 female and 3 male participants. Two of the participants were in third grade, one participant in fifth grade, and another participant in sixth grade. One participant received special education services at the time of the study but all observations completed for their Electronic Home Note ratings and all independent observations were conducted in the regular education classroom.

Participant 1 was in third grade at Site 1 and was the only female in the study. She

received her math instruction in a regular education classroom. On the voluntary Child Information Questionnaire, her parent indicated that she has been diagnosed with Attention-Deficit/Hyperactive Disorder (ADHD). Her parent indicated that Participant 1 was taking Adderall XR for her attention difficulties at the time of the study and had previously taken Concerta for the same concerns (see Appendix B). The BASC-2-TF indicated that her teacher perceived her as having clinically significant concerns in the areas of conduct problems and withdrawal while having at-risk concerns in the areas of hyperactivity, aggression, depression, attention problems, atypicality, adaptability, and study skills.

Participant 2 was also in the third grade at Site 1 and received his math instruction in a regular education classroom. On the voluntary Child Information Questionnaire, his parent did not indicate any previous diagnoses in regards to learning or attention (see Appendix B). The BASC-2-TF indicated that his teacher perceived him as having clinically significant concerns in the areas of depression, attention problems, atypicality, and withdrawal while having at-risk concerns in the areas of hyperactivity, conduct problems, learning problems, social skills, study skills, and functional communication.

Participant 3 was in sixth grade at Site 2 and received his math instruction in a regular education classroom. On the voluntary Child Information Questionnaire, his parent indicated that he has been diagnosed with Attention-Deficit/Hyperactive Disorder (ADHD). The mother indicated that Participant 3 has been on Stratera in order to treat the symptoms of this disorder, but he was not taking any medication at the time of this study (see Appendix B). The BASC-2-TF indicated that his teacher perceived him as having clinically significant concerns in the areas of depression, learning problems, atypicality,

and study skills while having at-risk concerns in the areas of hyperactivity, aggression, conduct problems, anxiety, somatization, attention problems, and withdrawal.

Participant 4 was in fifth grade at Site 2 and, at the time of this study, was receiving special education services in the area of math under the classification of Specific Learning Disability. Each day he received one math session in a special education classroom and one math session in his regular education classroom. For the purposes of this research study, Participant 4's regular education teacher only observed him while he was in the regular education classroom. On the voluntary Child Information Questionnaire, his parent indicated that he has been diagnosed with Attention-Deficit/Hyperactive Disorder (ADHD). The mother indicated that Participant 4 was taking Adderall and Prozac to treat the symptoms of this disorder at the time of this study (see Appendix B). The BASC-2-TF indicated that his teacher perceived him as having clinically significant concerns in the areas of anxiety, atypicality, and study skills while having at-risk concerns in the areas of hyperactivity, depression, attention problems, learning problems, withdrawal, adaptability, social skills, and leadership.

School Research Sites

The study was conducted in two elementary schools in a suburban school district in the Intermountain Area. Both schools were regular education public schools and offered special education classes in the areas of reading, writing, and math. The schools followed a traditional schedule and housed students from kindergarten through sixth grade. The researcher implemented the Electronic Home Note Intervention Package at Site 1 and a volunteer educator implemented the Electronic Home Note Intervention

Package at Site 2.

At the time of the study, Site 1 had 629 students enrolled with 60% receiving free or reduced lunch and 6% receiving special education services. The student population consisted of 66% minority students with Hispanic, Asian, African American, Pacific Islander, and Native Americans being the predominant minority groups. Site 2 had 434 students enrolled with 56% receiving free and reduced lunch and 18% receiving special education services. The student population consisted of 60% minority students with Hispanic, Asian, Pacific Islander, Native American, and African Americans being the predominant minority groups. Site 2 contained three functional academic units supporting students with limited cognitive and functional abilities and offered an afterschool program designed to assist students to gain further academic support.

The research rooms consisted of an empty classroom or the school psychologist's office and were used to conduct all orientation and office reinforcement sessions. Two chairs and a table were set up at each site to accommodate the researcher, volunteer educator, participants, teachers, and parents. Orientation components within the Electronic Home Note Intervention Package were viewed on a MacBook Pro laptop computer with a 13-inch screen, which was set on the table directly in front of the teachers, parents, and participants. One laptop computer was available for use at each site.

Dependent Measures

Multiple types of measures were used to analyze the effectiveness of the Electronic Home Note Intervention Package. The primary measure gathered was the on-

task rates for each participant. Individualized curriculum-based math worksheets completed across the study were also collected to assess the impact of the intervention on academic performance. Both rates of completion and accuracy of completed problems were gathered from these worksheets. Consumer satisfaction feedback concerning the intervention was also obtained via social validity questionnaires from each participant, teacher, and parent and through the Fun 'O' Meter. Procedures for the analysis of the dependent measures are described in greater detail later.

On-Task Observations

Systematic direct observations by two independent observers were used to gather on-task rates for each participant. These observations were conducted using a response discrepancy format with whole-interval recording. The observations took place in each participant's classroom during a period when the participants were required to complete independent math seatwork. The independent observers followed the behavioral observation format described in *The Tough Kid Tool Box* (Rhode et al., 2010). Each observation was 15 minutes in length and divided into 90 10-second intervals (see Appendix C). During each 10-second interval, the participants were observed along with a same-gender peer. To be counted as on-task, the participant had to be on-task for the entire 10-second interval. If the participant was off-task at any time during the 10-second interval, the participant was marked as off-task for that interval. A participant was only counted as being off-task once during each interval. If more than one off-task behavior occurred, it was ignored until the next 10-second interval. The behaviors that were observed and their corresponding codes are taken from *The Tough Kid Tool Box* (Rhode

et al., 2010) and are as follows:

* = *On-Task:* Eye contact with teacher or task and performing the requested task.

T = *Talking Out/Noise:* Inappropriate verbalization or making sounds with object, mouth, or body.

O = *Out of Seat:* Student fully or partially out of assigned seat without teacher permission.

I = *Inactive:* Student not engaged with assigned task and passively waiting, sitting, etc.

N = *Noncompliance:* Breaking a classroom rule or not following teacher directions within 15 seconds.

P = *Play with Object:* Manipulating objects without teacher permission.

Academic Assignments

Throughout the study, each participant was provided with individualized curriculum-based math worksheets generated from the Math Worksheet Generator located on www.interventioncentral.org or the SuperKids Math Worksheet Generator located on www.superkids.com (see Appendix E). Each worksheet contained at least 60 individual math facts on two double-sided worksheets. Participant 4's worksheets were increased to 90 individual math facts on three double-sided worksheets because it was observed that he could complete more math facts than 60. Each participant's individualized worksheets were generated based on their most current Acuity Predictive Assessment data that were used for their inclusion in the study. Each participant's Acuity Predictive Assessment report data were analyzed to determine a mathematical area where

the participant achieved less than 25% of problems correct (CTB/McGraw-Hill, 2010). Consultation with their teacher also helped determine the appropriateness of each participant's worksheets.

The participants worked on these worksheets throughout the study and specifically during a specified independent math seatwork time. The researcher provided these worksheets for each participant's teacher before each participant entered the baseline phase of the study. Each classroom teacher gave a worksheet to the participants at the beginning of each 15-minute on-task observation. At the end of each observation, the classroom teacher immediately collected the worksheet. These were given to the researcher to compute the completion of problems and the amount of problems completed correctly. A new worksheet was provided to each participant every day of the baseline, intervention and follow-up phases. To make it possible to measure completion of problems and the amount of problems completed correctly, the participants' teachers were asked to have the participants exclusively work on these worksheets during an established 15-minute period daily throughout each phase of the study.

Parental Response Consistency

Throughout the intervention phase, the researcher recorded the number of parent responses received, via email, indicating that the parents reviewed the Electronic Home Note data with their child. If the parents indicated that they reviewed the Electronic Home Note data with their child, the researcher indicated that a response was made. If the researcher did not receive such indication before the beginning of the next school day, the researcher assumed the parent had not reviewed the Electronic Home Note data with their

child.

Consumer Satisfaction

Teacher questionnaire. A teacher questionnaire constructed by the researcher was used to determine the degree to which the teacher of each participant either liked or disliked the Electronic Home Note Intervention Package (see Appendix B). The questionnaire consisted of 24 statements adapted from the Behavior Intervention Rating Scale (Elliot & Treuting, 1991), which are rated on a six-point Likert scale ranging from "strongly agree" to "strongly disagree." The questionnaire also contained four open-ended questions constructed by the researcher. These questions allowed each teacher to more specifically indicate their thoughts about using the intervention. The teacher of each participant completed the questionnaire on the last day of the intervention phase.

Parent questionnaire. A parent questionnaire constructed by the researcher was used to determine the degree to which the parent of each participant either liked or disliked the Electronic Home Note Intervention Package (see Appendix B). The questionnaire consisted of 24 statements adapted from the Behavior Intervention Rating Scale (Elliot & Treuting, 1991), which are rated on a six-point Likert scale ranging from "strongly agree" to "strongly disagree." The questionnaire also contained four open-ended questions constructed by the researcher. These questions allowed each parent to more specifically indicate their thoughts about being involved in the intervention. The parent of each participant completed the questionnaire on the last day of the intervention phase.

Participant questionnaire. A participant questionnaire constructed by the

researcher was used to determine the degree to which each participant felt about participation in the intervention (see Appendix B). The questionnaire consists of eight statements adapted from the Children's Intervention Rating Profile (Elliot, 1986), which are rated on a six-point Likert scale ranging from "strongly agree" to "strongly disagree." The questionnaire also contained four open-ended questions constructed by the researcher. These questions allowed each participant to more specifically indicate their thoughts about being involved in the intervention. To accommodate a younger population and to ensure the participants fully understood each question, the questionnaire was given on a one-on-one basis to each participant by the researcher on the last day of the intervention phase.

Fun 'O' Meter ratings. The Fun 'O' Meter (Jenson & Sprick, 2014) was used to evaluate the office reinforcement sessions for helpfulness and fun for each participant (see Appendix D). Each participant marked the Fun 'O' Meter at specified ratings and these were used to determine how each participant felt about participation in the intervention after each office reinforcement session.

Treatment Fidelity

The researcher created fidelity probe checklists, listing each step that was taken to maintain treatment fidelity throughout the study (see Appendix F). Each step was marked off on the checklist by the researcher or volunteer educator as it was completed during the initial orientation session for each participant, parent, and teacher, all office reinforcement sessions for each participant, each teacher's and parent's booster sessions, and each teacher's follow-up session.

Research Design

A multiple probe, multiple-baseline design (Cuvo, 1979; Horner & Baer, 1978) was used to evaluate the effectiveness of the Electronic Home Note Intervention Package for the participants in the two school research sites involved in the study. A multiple probe design allows a researcher to use intermittent probes to evaluate the effectiveness of an intervention when continuous data measurement proves impractical or unnecessary (Horner & Baer, 1978). The use of a multiple probe technique helps to control for any reactive or extinction effects on a behavior that may be inadvertently caused by the constant presence of the researcher collecting data (Horner & Baer, 1978). Moreover, a multiple-baseline design staggers the initiation of intervention phases for different participants, reducing threats to internal validity that may be present if all participants began the intervention phase at the same time (Kazdin & Kopel, 1975).

At the beginning of the study, three 15-minute systematic direct observation probes by independent observers were conducted for each participant to establish whether or not he or she was a quality candidate for the study. These were taken at the same time the participants completed their individualized curriculum-based math worksheet in their regular education classroom during independent seatwork time. At the conclusion of the baseline phase, independent observation probes were always taken immediately before and after a participant entered the intervention phase. During the intervention phase, independent observation probes were conducted at random during 36% of the intervention days and served to determine a level of agreement between those and the teachers' ratings with the use of the Electronic Home Note. During the follow-up phase, three additional independent observation probes were conducted for each participant.

Interobserver reliability probes were also taken across each phase of the study to determine the reliability between the independent observers. These were conducted for 39% of the total independent observations across the study. These were collected at random during the baseline, intervention, and follow-up phases using a previously designed observation schedule.

Materials

Observation Training Video

An observation training video was used for the purpose of training and establishing interobserver reliability between the researcher and the volunteer educator. The observation video was approximately 6 minutes in length and took place in a regular education classroom. The video showed three male students and two female students in the sixth grade engaged in independent academic seatwork while displaying typical classroom behaviors and who were on-task approximately 80% of the time.

Electronic Home Note

The Electronic Home Note consists of a Google Form designed to resemble a typical home note. Creation of Electronic Home Note followed guidelines by Cooper (2010) and Chafouleas (2013). It was designed for teachers to rate the behaviors of students on a qualitative rating scale of specific behaviors chosen by the researcher and teacher. The scales have 10 options for teachers to choose ranging from 1-10 with anchors of “Never” and “Always” at points 1 and 10, respectfully. The Electronic Home Note includes the participant’s name, the parent’s email, an ”On Task” behavior rating

scale, an "Academically Engaged" behavior rating scale, behavior rating scales for two optional behaviors chosen by the teacher, a description of each behavior to be rated, and a comments section for teachers (see Appendix G and in Figure 1). The comments section was designed to allow teachers the opportunity to provide more in-depth feedback to parents, including homework assignments. For guidelines on how the researcher created the Electronic Home Note from the Google Form application, refer to Appendix G.

Once the Electronic Home Note is created, the user can modify the Electronic Home Note to choose the behaviors they would like to evaluate and put in the parent's email of the student for whom the Electronic Home Note was created. Each student requires their own personalized Electronic Home Note that includes the behaviors the user wishes to monitor through the Electronic Home Note and their parent's email. For the purpose of this study, only the two optional behaviors chosen by the teacher and parent emails were modified.

After the Electronic Home Note has been modified to the user's needs, the Google Form application will automatically create an Excel spreadsheet that is embedded in the Google Form application. From this spreadsheet, the Google Form application will automatically graph the data from the spreadsheet onto a line graph. This Excel spreadsheet can be accessed through the Electronic Home Note in the user's Google Drive and then by clicking on the "View Responses" button. The line graph can be accessed through the Excel spreadsheet by clicking on the "Response Graph" tab at the bottom of the page. When an educator submits an Electronic Home Note, by clicking submit on the bottom of the Electronic Home Note, the information is sent directly to the parent's email and to the embedded Excel spreadsheet. Each behavioral rating on the

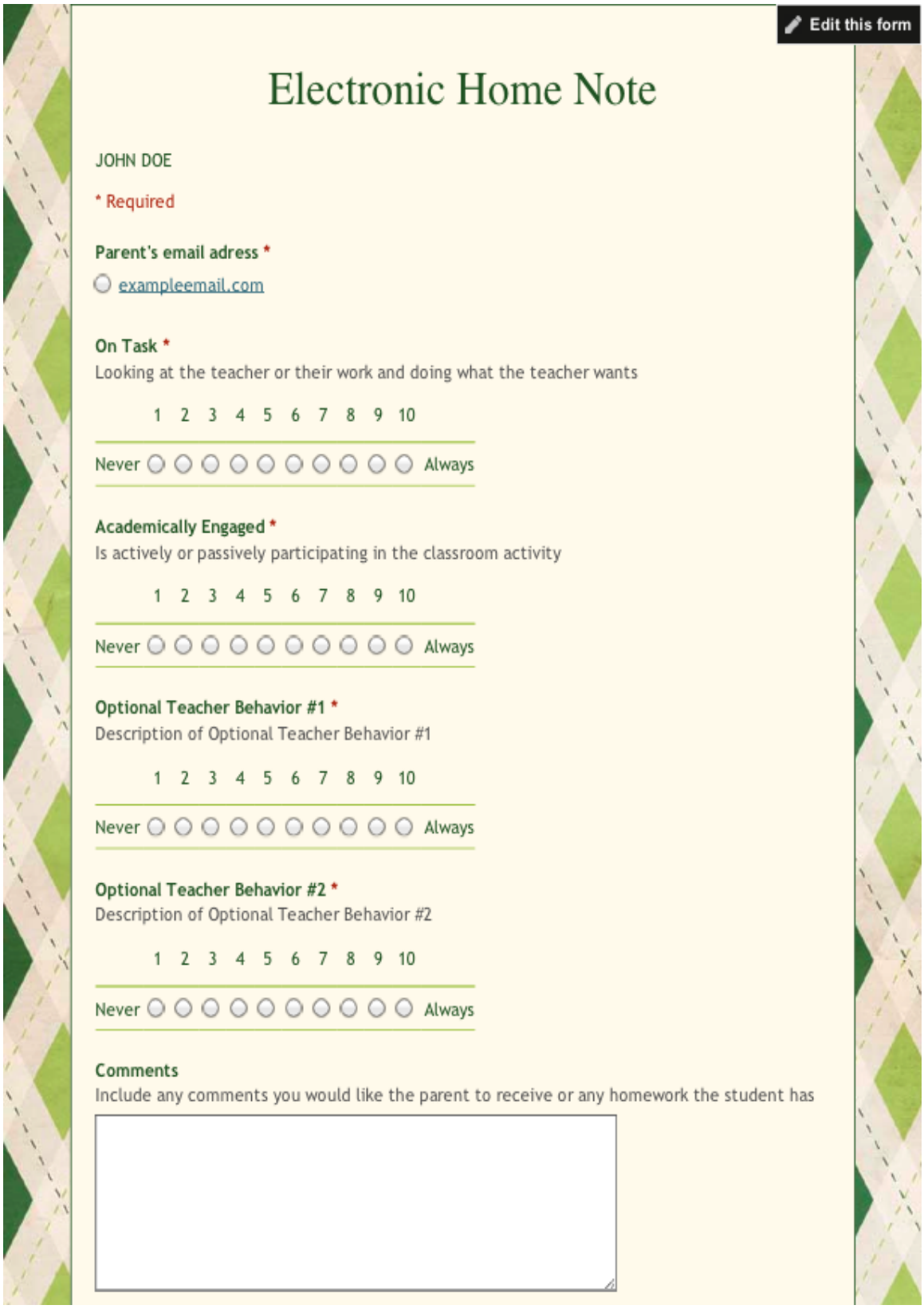


Figure 1. Electronic Home Note Example

embedded Excel spreadsheet is also automatically graphed onto a single line graph.

The information obtained from the Electronic Home Note that is automatically embedded into the Excel file is:

- The date of the Electronic Home Note ratings
- The parent's email where the ratings were automatically sent
- Each behavior's rating
- All comments made by the teacher

Once the Electronic Home Note for a student is created, the teacher can submit ratings of a student by accessing the webpage the student's personalized Electronic Home Note occupies. For the purpose of this study, the researcher had each teacher save their students' Electronic Home Note web pages on the teacher's school computer desktop. An example of the Excel spreadsheet and the graph are represented in Figures 2 and 3.

Curriculum-Based Math Worksheets

To measure the effects of the intervention on the participants' academic achievement, curriculum-based math worksheets were created using the Math Worksheet Generator located on www.interventioncentral.org and the SuperKids Math Worksheet Generator located on www.superkids.com (see Appendix E). To match the level of difficulty of the math worksheets to each participant's skill level, the researcher consulted with each participant's teacher. This consultation took place during each teacher's orientation session and before baseline observations were conducted. During the orientation, the researcher and the teacher reviewed the participant's most current Acuity Predictive Assessment data that were used for their inclusion in the study. Each

Timestamp	Parent's Email	On-Task	Academically Engaged	Optional Teacher Behavior #1	Optional Teacher Behavior #2	Comments
2/28/2014 10:32	exampleemail.c	6	8	5	5	
2/28/2014 10:34	exampleemail.c	10	10	9	8	
2/28/2014 10:37	exampleemail.c	6	4	4	1	
2/28/2014 10:44	exampleemail.c	6	7	5	6	
2/28/2014 10:55	exampleemail.c	7	7	6	6	
2/28/2014 15:27	exampleemail.c	6	7	5	9	Its cool. HW tomorrow no skiing tomorrow
3/3/2014 11:19:	exampleemail.c	8	7	6	10	Some math in folder to do by Friday
3/7/2014 8:37:0	exampleemail.c	6	4	3	7	Student was bothering his neighbor. Kept getting out of seat.
3/7/2014 9:26:5	exampleemail.c	7	6	7	7	Some math hw tonight
3/7/2014 14:02:	exampleemail.c	4	7	1	9	We had a great day and there is no homework tonight.
3/11/2014 11:56	exampleemail.c	8	7	7	7	Some math hw tomorrow is due
3/11/2014 18:21	exampleemail.c	8	7	8	9	Some hw tomorrow and bring folder
3/12/2014 18:21	exampleemail.c	8	7	8	9	
3/13/2014 18:21	exampleemail.c	8	7	8	9	
3/14/2014 18:21	exampleemail.c	8	7	8	9	
3/15/2014 18:21	exampleemail.c	8	7	8	9	
3/16/2014 18:21	exampleemail.c	8	7	8	9	
3/17/2014 18:21	exampleemail.c	8	7	8	9	
3/18/2014 18:21	exampleemail.c	8	7	8	9	
3/19/2014 18:21	exampleemail.c	8	7	8	9	
3/20/2014 18:21	exampleemail.c	8	7	8	9	
3/21/2014 18:21	exampleemail.c	8	7	8	9	
3/22/2014 18:21	exampleemail.c	8	7	8	9	
3/23/2014 18:21	exampleemail.c	8	7	8	9	
3/24/2014 18:21	exampleemail.c	8	7	8	9	
3/25/2014 18:21	exampleemail.c	8	7	8	9	
3/26/2014 18:21	exampleemail.c	8	7	8	9	
3/27/2014 18:21	exampleemail.c	8	7	8	9	
3/28/2014 18:21	exampleemail.c	8	7	8	9	
3/29/2014 18:21	exampleemail.c	8	7	8	9	
3/30/2014 18:21	exampleemail.c	8	7	8	9	
3/31/2014 18:21	exampleemail.c	8	7	8	9	

Figure 2. Excel Spreadsheet Example

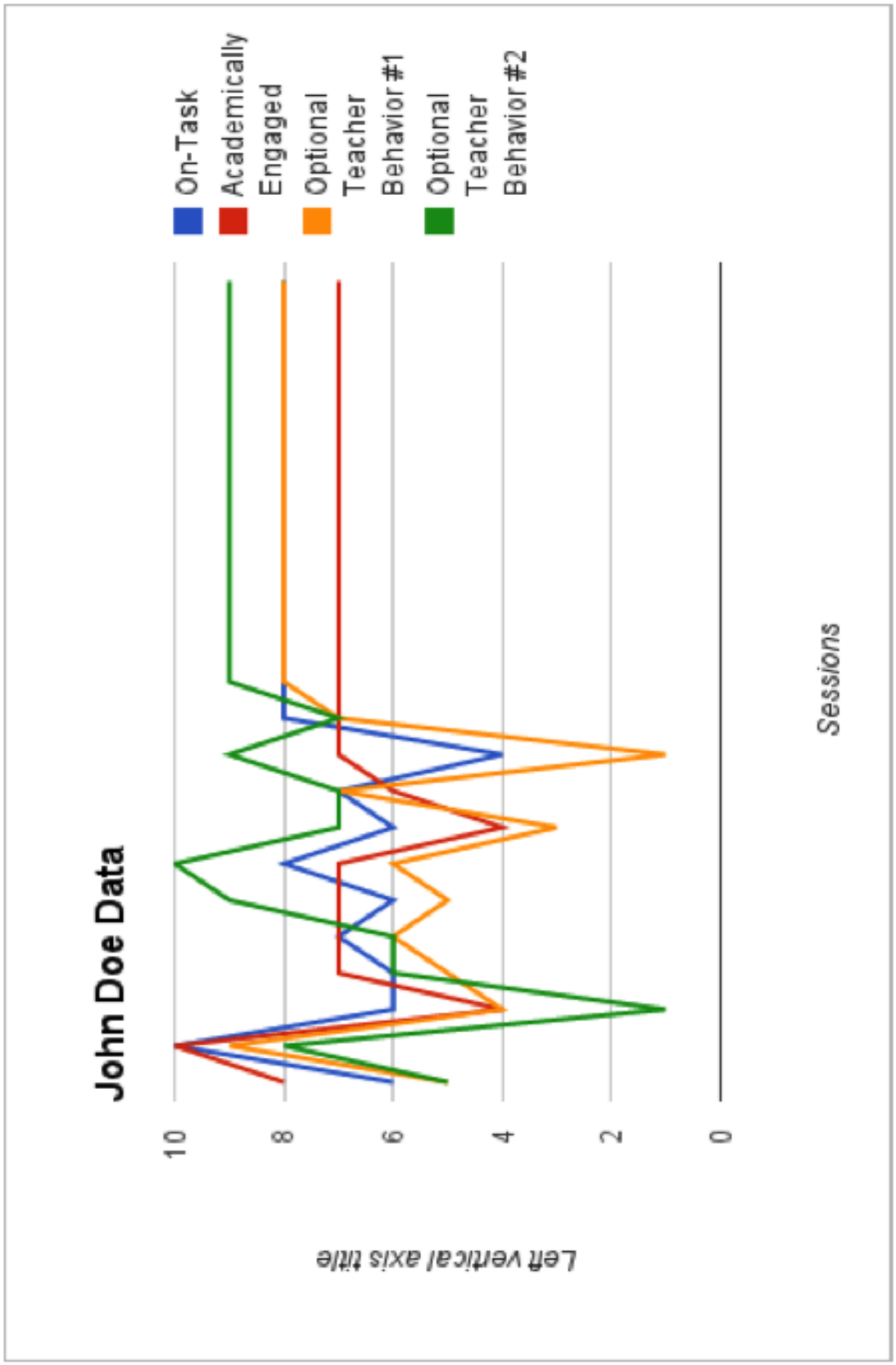


Figure 3. Response Graph Example

participant's Acuity Predictive Assessment data were analyzed to determine a mathematical area where the participant achieved less than 25% of problems correct. Consultation with each participant's teacher also helped determine appropriateness of each participant's worksheets. Because Participant 4 received special education services in math, his special education goals were also used to determine an area of focus with his worksheets.

Forty different worksheets were generated for each participant based on the consultation with each teacher. Each worksheet consisted of two double-sided pages that contained 30 different math fact problems per page for a total of 60 math facts. Because Participant 4 was able to complete much of these worksheets, his worksheets consisted of three double-sided pages for a total of 90 math facts.

Self-Plotting Graph

During each office reinforcement session with the researcher or volunteer educator, the participants recorded their teacher-rated on-task behavior on their Self-Plotting Graph (see Appendix H). The x-axis represented the observation periods. The y-axis represented the amount of time the participant was on-task during each observation period. The x-axis contained 49 rows and the y-axis contained 20 columns.

Spinner and Reward Menu

The Reward Spinner (Jenson, Rhode, & Reavis, 2009) is made up of seven different sized wedges labeled "1-7". The seventh wedge was labeled "?" The Reward Spinner is accompanied by a Rewards Menu, which contains a list of six items numbered

1-6 (see Appendix I). An additional item was labeled "Mystery Motivator," as described below. The reward associated with each number was written next to it with a water-based marker. Each participant chose six items from a list of possible rewards during their orientation. After each office reinforcement session with the researcher or volunteer educator, the participant earned a spin on the Reward Spinner. The participant spun the arrow on the Reward Spinner and was given whatever reinforcer the arrow landed on (either a numbered reinforcer or the Mystery Motivator).

Mystery Motivator

The Mystery Motivator (Jenson et al., 1995) consists of a valued reinforcer that is written on a slip of paper and placed in a sealed envelope. Each envelope is marked with a question mark. The reinforcer contained in the envelope is unknown to the participant. The participants were told that the Mystery Motivator envelope contained an especially desirable reward, thus increasing their anticipation and desire to earn a spin the Reward Spinner. Each time a Mystery Motivator reward was earned, a new reward was written down and placed in the envelope. Rewards that were placed in the Mystery Motivator envelop included the opportunity to spin twice for rewards, the option to choose any item on the Reward Menu, and specific small toys not available on the Reward Menu.

Procedures

See Figure 4 for a timeline representing the order of procedures.

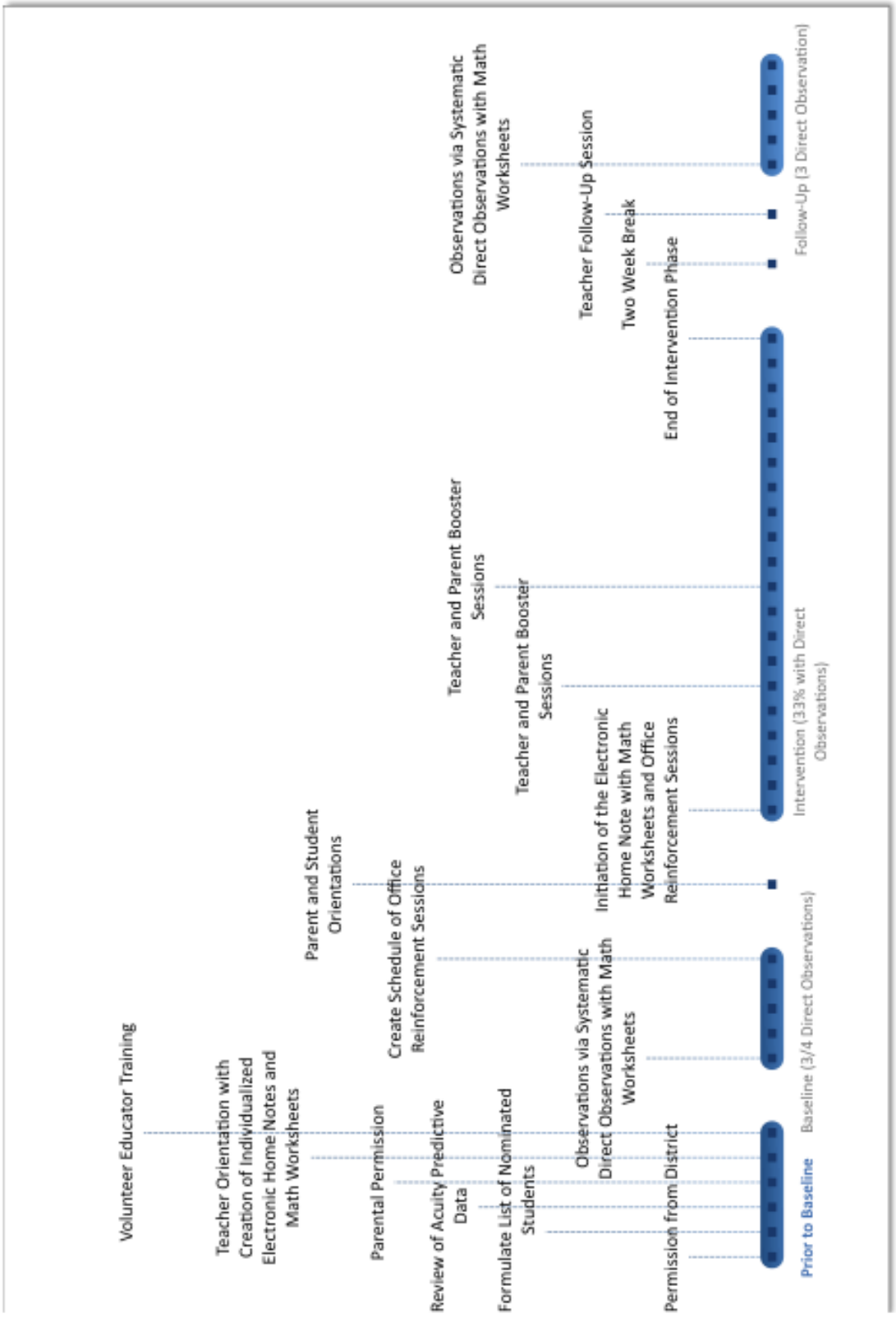


Figure 4. Order of Procedures

Observer Training and Interrater Reliability

The researcher enlisted the assistance of a volunteer educator to help perform the systematic direct observation probes and assist in running the Electronic Home Note Intervention Package. To ensure interrater agreement, an observation training session was conducted with the volunteer educator in a setting described above. During the training session, the researcher reviewed the definitions of on-task and off-task behaviors included on the observation form in the *Tough Kid Tool Box* (Rhode et al., 2010) with the volunteer educator. The previously described observation training video was used to practice performing the direct observations. Practice systematic direct observations were repeated until the volunteer educator felt comfortable with the direct observation procedures and a minimum of 0.80 interrater reliability was achieved. Cohen's Kappa, which corrects for chance agreement, was used to calculate interrater reliability. An agreement plus disagreement model was also calculated for each observation.

The researcher and volunteer educator conducted the first three systematic direct observation probes for all participants during the baseline phase. To determine the level of agreement between independent observations and each teacher's ratings on the Electronic Home Note, the researcher and volunteer educator conducted independent observation probes for each participant across 36% of the intervention phase observations. During the follow-up phase, three additional independent observation probes were conducted for each participant.

To ensure interobserver reliability, the researcher and the volunteer educator conducted systematic direct observation probes at the same time during 39% of the observation probes across all phases of the study. A total of 23 interobserver reliability

probes were collected at random for all participants across the baseline, intervention, and follow-up phases using a previously designed observation schedule.

Orientation Sessions

Teacher orientation. Before each participant entered the baseline phase of the study, each participating teacher took part in an initial orientation meeting. These orientations were conducted one-on-one with each teacher by the researcher in a setting as described above. The objectives of the orientation session, as described in Appendix F, are to acquaint each teacher with the program goals, which are to improve on-task behavior and academic efficiency. During the orientation, teachers were taught the definition of on-task behavior and were acquainted with each component of the Electronic Home Note Intervention Package. Each teacher was able to choose two optional behaviors to be monitored through the intervention at this time.

During the orientation session, the researcher taught the teacher how to use the Electronic Home Note. The researcher had each teacher:

- Access the webpage of each of their student's Electronic Home Note
- Click the button of the parent's email
- Click a rating for each behavior to be rated
- Write a comment in the Comment box
- Click submit at the bottom of the Electronic Home Note

After submitting the ratings on the Electronic Home Note, the researcher showed an example of the data gathered from the Electronic Home Note by accessing the Excel spreadsheet associated with each student's Electronic Home Note. The researcher then

had the teacher save the webpage associated with each of their student's Electronic Home Note on their school computer's desktop.

Following the training, the researcher and each teacher reviewed each participant's Acuity Predictive Assessment data and used the teacher's knowledge of each participant's math abilities to construct each participant's curriculum-based math worksheet. To conclude the orientation session, the researcher gave the teacher the BASC-2-TF to complete and reviewed the Teacher Consent Form. The Teacher Consent Form asked permission to participate in the study and provided information about the study.

Following each teacher orientation, the researcher created the Electronic Home Notes and the curriculum-based math worksheets for each participant and gave these to the teacher. The descriptions of the Electronic Home Note and the curriculum-based math worksheets are reviewed above. Following the baseline phase of the study, the researcher met with each teacher again to review the baseline on-task rates for their participants. After reviewing these data, the teacher was asked to provide an on-task percentage goal that their participant should attempt to reach through the use of the Electronic Home Note Intervention Package.

Parent orientation. Before each participant entered the intervention phase of the study, the participating parents took part in an initial orientation meeting. These orientations were conducted one-on-one with each parent by the researcher in a setting as described above. The objectives of the orientation session, as described in Appendix F, are to acquaint each parent with the program goals, which are to improve on-task behavior and academic efficiency. During the orientation, parents were taught the

definition of on-task behavior and were acquainted with each component of the Electronic Home Note Intervention Package. The researcher showed an example of an Electronic Home Note to the parent and an example of the data gathered from the Electronic Home Note.

The researcher showed the parent an example of the Prize Day Email, which is automatically generated and sent to the parent on the days the researcher sets a "vacation responder" for all response emails from the parent. The researcher taught the parent how to positively review the Electronic Home Note data with their child using praise and how to send a response email to the researcher indicating the Electronic Home Note data have been reviewed with their child. The researcher also taught the parent how to indicate to their child that a prize is available when the parent receives a Prize Day Email. How the researcher created Prize Day Emails is described in greater detail below.

To conclude the parent orientation, the researcher asked the parent to demonstrate their ability to complete their Electronic Home Note Intervention Package requirements by modeling how to explain the Electronic Home Note data to their child and the availability of a prize. The researcher asked each parent to not provide any tangible reinforcers to their child, as these would be given during office reinforcement sessions. Following the parent orientation, the researcher reviewed the Parent Consent Form, allowing each participant to participate in the study while clarifying any questions from the parent.

Participant orientation. Before each participant entered the intervention phase of the study, they took part in an initial orientation meeting. These orientations were conducted one-on-one with each participant by the researcher in a setting as described

above. The objectives of the orientation session, as described in Appendix F, are to acquaint each participant with the program goals, which are to improve on-task behavior and academic efficiency. During the orientation, participants were taught the definition of on-task behavior and were acquainted with each component of the Electronic Home Note Intervention Package. The researcher showed an example of an Electronic Home Note to each participant and an example of the data gathered from the Electronic Home Note. The researcher and each participant plotted the example data on a Self-Plotting Graph and reviewed the goal suggested by their teacher. The researcher had the participant create a goal, based on their teacher's suggestion, on their Self-Plotting Graph by drawing a yellow line at the percentage line.

The researcher asked each participant to demonstrate the behaviors indicated on their personalized Electronic Home Note. If the participant did not accurately demonstrate any or all of the behaviors, the researcher demonstrated and coached the appropriate behaviors. Afterwards, the researcher asked the participant to model the behaviors that were previously taught. To conclude the participant orientation, the researcher introduced the participant to the Reward Spinner, the Reward Menu and the rewards that were available, the Mystery Motivator, and the appropriate times to obtain a prize. The participants were able to choose six items they wanted to include on their personalized Rewards Menu from a list of 10 possible rewards. The participants were allowed one spin on the Reward Spinner and obtained a prize at this time. Following the participant orientation, the researcher reviewed the Participant Assent Form, asking each participant to participate in the study while clarifying any questions.

Study Phases

Baseline phase. Three initial systematic direct observation probes were collected for each participant using a response discrepancy whole-interval recording format. The researcher or the volunteer educator conducted these probes during independent math seatwork time. Each participant was provided with individualized curriculum-based math worksheets generated from the Math Worksheet Generator located on www.interventioncentral.org or the SuperKids Math Worksheet Generator located on www.superkids.com. Each worksheet contained 60-90 individual math problems and the participants were given 15 minutes to complete as much of the worksheet as they could during this time. After each observation was completed, the worksheets were collected by the classroom teacher and given to the researcher or volunteer educator.

The baseline data gathered were not shared with the parents or participants prior to the conclusion of the study. Baseline data were collected across 3 consecutive days for Participants 1 and 3. Probes spread across 5 days were taken for Participants 2 and 4. After collecting the third probe for each participant, Participants 1 and 3 entered the intervention phase. Two days after Participants 1 and 3 entered the intervention phase, another probe was taken for Participants 2 and 4. Participants 2 and 4 entered the intervention phase after their fourth baseline probe was collected.

Following the baseline phase, the researcher met with each participating teacher to review each participant's on-task data. The researcher asked each teacher to recommend an on-task percentage goal for each participant. During each participant's orientation session, they learned of their teacher's recommended on-task percentage goal and set a goal based on this information. A "goal line" was created on each participant's

Self-Plotting Graph by drawing a yellow line at this percentage line.

Intervention phase. During the intervention phase, teachers rated their participants using the Electronic Home Note while the participants worked on their individualized curriculum-based math worksheets. As in the baseline phase, each participant was given 15 minutes to complete as much of the worksheet as they could. Each day of the intervention phase, the curriculum-based math worksheets were collected and given to the researcher or volunteer educator and the teachers were asked to complete their ratings of the participant's behaviors following this time. After the teachers submitted his or her ratings on their participant's Electronic Home Note, this information was automatically imbedded into the Excel spreadsheet associated with each participant's Electronic Home Note and graphed. The information was also automatically sent to the each participant's parent's email.

The intervention phase lasted a minimum of 5 weeks. A 5-week minimum was chosen by the researcher due to an unexpected number of absences by both teachers and participants during the intervention phase. On the 5th week of the intervention phase, each participant's ratings made by the teacher on the Electronic Home Note were evaluated to determine if further intervention was needed. A participant's intervention phase was considered complete if three of their final five ratings indicated 80% on-task or greater. If a participant's ratings did not meet this criterion, they continued the intervention phase for up to 1 week or until this criterion was met. If this criterion was not met after the 6th week of the intervention phase, the intervention was discontinued. This criterion was met for Participants 3 and 4 and a 6th week of intervention was needed for Participants 1 and 2.

During the intervention phase, the researcher or the volunteer educator conducted independent systematic direct observation probes while the teacher was observing their participants for the purpose of the Electronic Home Note. These occurred seven to nine times for all participants across the intervention phase. These probes were always taken prior and post to the intervention phase change. The remaining probes were conducted following a previously designed observation schedule so the number of probes taken during the intervention phase was equal to seven, eight, or nine probes for each participant.

To ensure that independent observation probes for each participant were collected in a randomized manner, the researcher created the observation schedule before the start of the intervention phase. The schedule was based on the time when each participant received his or her math instruction as well as the availability of the observers. If any changes to the original observation schedule due to absences or changes in the school schedule occurred, observations were rescheduled as close to the original time slot as possible.

If a teacher did not complete an Electronic Home Note before the end of the school day, a reminder email was sent to the teacher to complete the Electronic Home Note. This email included a link to the Electronic Home Note. If a teacher did not complete the Electronic Home Note on a 2nd day of the intervention phase, the researcher sought out a meeting with the teacher and asked them to complete the Electronic Home Note. One teacher required such a meeting during the first week of the intervention phase but did not need any additional reminders after this initial meeting.

Immediately following the submission of the Electronic Home Note, parents

would receive the data from the Electronic Home Note, via email. After receiving these data, the parents were to review the data with their child and send a reply email to the researcher. The reply email was an indication to the researcher that the data were reviewed between the parent and their child.

During the intervention phase, the researcher began to set "vacation responder" emails. These automatically generated "Prize Day Emails" to parents' responses that the Electronic Home Note data had been reviewed with their child. The researcher set the "vacation responder" emails the day before an office reinforcement session was to occur. The researcher set this by accessing the Gmail account used for the Electronic Home Note, accessing "Settings," and clicking the "Vacation Responder On" button. The researcher titled the "vacation responder" email "Prize Day Tomorrow" in the subject line, included a link to their participant's ratings across the intervention, and put in the following in the body section:

** Thank you for reviewing the Electronic Home Note with your child! Make sure to praise and congratulate them and let them know that there is a Prize Day tomorrow morning before school in the school psychologist's office!*

Office reinforcement sessions were conducted following a designed schedule so each participant received eight office reinforcement sessions. To ensure that a schedule for each participant was conducted in a randomized manner, the researcher created the schedule before the start of the intervention phase. The schedule consisted of two office reinforcement sessions per week across the 5 intervention weeks for each participant. Because 2 weeks of the intervention phase were shortened school weeks, only one office reinforcement session was conducted during these weeks. If a participant required a 6th

week of intervention, two additional office reinforcement sessions occurred during this week.

Follow-up phase. At the beginning of the follow-up phase, the researcher held a meeting with each participant's teacher. The researcher asked each teacher to verbally review the steps for each participant to complete their curriculum-based math worksheet. If a teacher did not indicate a required step, the researcher reviewed this step with the teacher. The researcher used the Teacher Follow-Up Session Checklist to ensure that meetings were conducted with fidelity (see Appendix F).

Each participant completed 1 full week of a follow-up phase. This occurred 2 weeks following the intervention phase for each participant. Each participant was observed through three systematic direct observation probes using a whole-interval response discrepancy format. As in the baseline and intervention phases, these observations were 15 minutes in length and occurred while the participants worked on their curriculum-based math worksheets during independent math seatwork time. A schedule for these observation probes was created prior to the participant entering the intervention phase. Information from these observations was not shared with the parents or participants prior to the conclusion of the study. After each session, each participant's curriculum-based math worksheet was collected and given to the researcher or volunteer educator.

Office Reinforcement Sessions

Each office reinforcement session was conducted in a standardized format following the outline provided in Appendix F. Each session ran approximately 5 minutes

with each participant. The researcher conducted the office reinforcement sessions for the 2 participants at Site 1 while a volunteer educator who was trained to use the Electronic Home Note Intervention Package implemented the office reinforcement sessions for the 2 participants at Site 2. Once each participant entered the intervention phase of the study, they received approximately two office reinforcement sessions per week across the intervention phase. These office reinforcement sessions took place the day following when a "Prize Day Email" was sent to the parents. As indicated above, the parents of each participant would have to provide a response email to the researcher, indicating they had reviewed the Electronic Home Note data with their child, to receive a "Prize Day Email." A schedule for the office reinforcement sessions was created prior to each participant entering the intervention phase.

The objectives of each office reinforcement session, as described in Appendix F, are to review the teacher's rated on-task rates with each participant, review how efficiently each participant is using their time in class, and review the ratings for the two optional behaviors chosen by the participant's teachers. Office reinforcement sessions also gave each participant practice in modeling their targeted behaviors. Following this review, each participant self-plotted their on-task ratings, as rated by their teacher, on their Self-Plotting Graph. Afterwards, each participant used the Reward Spinner to obtain a prize on his or her individualized Rewards Menu. After the participant received their prize, they marked the Fun 'O' Meter, indicating their level of enjoyment for the office reinforcement session.

It was the participant's responsibility to seek out an office reinforcement session when available. If a participant did not seek out an available office reinforcement session

before the end of the school day, the researcher would have conducted a similar session at their next earliest convenience, but the participant would not have been able to use the Reward Spinner to obtain a prize on their individualized Rewards Menu. During these sessions, the researcher or volunteer educator would have encouraged the participant to review their teacher's ratings every day with their parent. Following these sessions, the researcher would have made a phone call to the participant's parents, informed them that their participant did not come to the available office reinforcement session, and asked the parent to remind their child when these sessions become available through Prize Day Emails. Although this procedure was established, all participants came to every available office reinforcement session and thus, this procedure did not take place.

Booster Sessions

Teacher booster session. At the beginning of the 2nd week of the intervention phase, the researcher held a meeting with each participant's teacher. The researcher held another meeting with each participant's teacher at the start of the 3rd week of intervention due to a 1-week school break between these intervention weeks. The researcher asked each teacher to verbally review the steps to complete the Electronic Home Note. If a teacher did not indicate a required step, the researcher reviewed this step and the teacher model this step. The researcher used the Teacher Booster Session Checklist to ensure that the meetings were conducted with fidelity (see Appendix F).

Parent booster session. At the beginning of the 2nd week of the intervention phase, the researcher contacted each participant's parent, via telephone, to verbally review the steps to complete the parent components of the Electronic Home Note Intervention

Package. The researcher also contacted each participant's parent at the start of the 3rd week of intervention due to a 1-week school break between these intervention weeks. If a parent did not indicate a required step, the researcher reviewed this step with the parent. The researcher used the Parent Booster Session Checklist to ensure that the meetings were conducted with fidelity (see Appendix F).

Data Analysis

On-Task Rates

On-task rates were collected via systematic direct observation through independent observers. The percentage of time each participant was on-task was calculated by taking the number of intervals rated as on-task and dividing that by the total number of intervals observed. Data were also plotted to allow visual analysis of any patterns in the difference between each participant's baseline, intervention, and follow-up on-task rates.

Effect Size

An effect size was calculated for each participant using the 'no assumptions' approach as presented by Busk and Serlin (1992). Using this model, a separate effect size was obtained for each participant by dividing the difference in the baseline and intervention means by the baseline standard deviation. The formula used is as follows:

$$\frac{\text{(Mean of Intervention Phase – Mean of Baseline Phase)}}{\text{Standard Deviation of Baseline Phase}}$$

Cohen (1998) defined a set of conventional standards for interpreting effect size. Using these standards, 0.2 would be considered a small treatment effect, 0.5 would be a medium effect, and an effect size of 0.8 or above would be considered a large treatment effect.

Percentage of Nonoverlapping Data

A percentage of nonoverlapping data (PND) score was calculated for each participant to provide further information concerning the effectiveness of the intervention. The method for calculating PND scores for studies that focus on increasing target behaviors has been described by Olive and Smith (2005). The first step is to identify the highest baseline point. Next, the number of intervention data points observed to be above the highest baseline data point is found. Finally, the number of intervention data points above the highest baseline data point is divided by the total number of data points. PND scores over 90 indicate a highly effective intervention, 70-90 indicates a fairly effective intervention, 50-70 indicates a questionable effectiveness of the intervention, and scores below 50 are regarded as ineffective treatments (Scruggs, Mastropieri, Cook, & Escobar, 1986).

Nonoverlap of All Pairs

A Nonoverlap of All Pairs (NAP) score was also calculated for each participant to provide further information concerning the effectiveness of the intervention. The method for calculating NAP scores for studies that focus on increasing target behaviors has been described by Parker and Vannest (2009). They define NAP as “the probability that a

score drawn at random from a treatment phase will exceed (overlap) that of a score drawn at random from a baseline phase" (p. 359). NAP is shown to have superior external validation against visual analyst judgment and computational efficiency and accuracy when compared to other overlap-based effect size measures in single-case research such as "Percent of all Nonoverlapping Data" (PAND), "Percent of Overlapping Data" (PND), and "Percent of Data Points Exceeding the Median" (PEM) (Parker & Vannest, 2009).

The first step to calculate NAP is to identify all overlapping pairs between the baseline and intervention phases. The total possible pairs is the number of data points in the baseline phase multiplied by the number of data points in the intervention phase. An overlap between a baseline and intervention point counts as one point and a tie counts as half a point. All overlapping baseline points are compared to all intervention points to achieve a total overlap score. The overlap score is subtracted from the total possible pairs. To achieve a probability score, the resulting number is then divided by the total possible pairs. Parker and Vannest (2009) suggest NAP scores in the ranges of .85 - 1.0 indicate strong intervention effects, between .32 - .84 indicate medium intervention effects, and 0 -.31 indicate weak intervention effects.

Math Work Completion

Curriculum-based math worksheets were completed by each participant and analyzed by the researcher to determine the average number of problems completed during each phase of the study. The researcher counted each problem for which the participant gave an answer. Both correct and incorrect answers were counted as items completed. The data were plotted to allow for visual analysis of any patterns in the

difference between the participants' performance during the baseline, intervention, and follow-up phases.

Math Work Problems Completed Correctly

Curriculum-based math worksheets were completed by each participant and analyzed by the researcher to determine the average number of problems completed correctly during each phase of the study. For each participant, the researcher counted the total number of problems solved correctly for each phase. The data were plotted to allow for visual analysis of any patterns in the difference between the participants' performance during the baseline, intervention, and follow-up phases.

Teacher Response Accuracy

On-task rates were calculated for each participant through systematic direct observation probes made by the researcher or volunteer educator. Teacher-rated on-task rates on the Electronic Home Note across the same days as these probes were noted. A Pearson Product-Moment Correlation Coefficient (Rogers & Nicewander, 1988) between the systematic direct observation probes and teacher-rated on-task rates was calculated to determine the degree of agreement between these sources. One coefficient was calculated for each participant that included all comparisons across the intervention phase.

Parental Response Consistency

During the intervention phase, each participant's parent was asked to reply to the researcher, via email, indicating they had reviewed the Electronic Home Note data with

their child. The researcher recorded the number of responses received from each parent and divided the number of responses by the total number of Electronic Home Notes completed by the teacher. Each parent had a separate parental response consistency percentage.

Consumer Satisfaction

Ratings gathered from the consumer satisfaction questionnaire are presented in a table format. The questions are listed along with the responses that were given by each participant. A mean rating for each question on the teacher, parent, and participant questionnaire is reported. Open-ended information is reported in a narrative form. Fun 'O' Meter ratings from each participant's office reinforcement sessions were also gathered and assigned a numerical value. One average was calculated for each participant that included all Fun 'O' Meter ratings.

RESULTS

The focus of this research project was to investigate the efficacy of the Electronic Home Note Intervention Package to increase the rate of on-task behavior and academic performance of 4 participants. The Electronic Home Note Intervention Package was implemented at two school research sites. The following results were obtained during the implementation of this project in the separate school sites for baseline, intervention, and follow-up phases.

Research Questions

Question 1: "Will rates of on-task behavior for participants be higher than baseline on-task rates after receiving the Electronic Home Note Intervention Package as measured by direct observation?"

The average baseline rate of on-task behavior for all participants in this study at Site 1 and 2 was observed to be 33% by independent observers in the classroom during independent math seatwork. During the intervention phase, the average rate of on-task behavior displayed for all participants based on direct observations rose to 64%. This result indicates that the Electronic Home Note Intervention Package effectively increased the rate of on-task behavior across the participants in the study. See Figure 5 for the comparison of all participants' on-task rates across baseline and intervention phases.

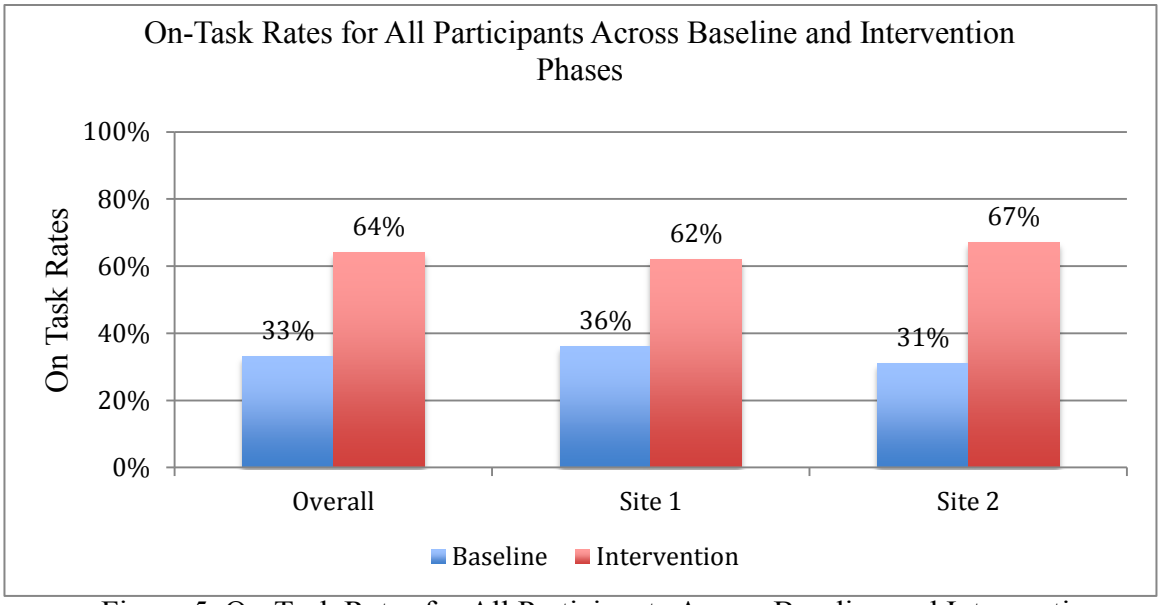


Figure 5. On-Task Rates for All Participants Across Baseline and Intervention Phases

The average effect size of the Electronic Home Note Intervention Package for all participants in the study was 2.63. This is a large effect size, indicating that the Electronic Home Note Intervention Package was very effective at increasing the participants' on-task behaviors (Cohen, 1988). The average percentage of nonoverlapping data (PND) score for all participants in the study was calculated to be 85%. This score indicates that the intervention package was fairly effective at increasing the participants' rates of on-task behavior (Scruggs et al., 1986). The average probability of nonoverlap of all pairs (NAP) score for all participants in the study was calculated to be .88. This score indicates that the intervention package had strong effects (Parker and Vannest, 2009).

Site 1

The average rate of on-task behavior during baseline for the participants at Site 1 was observed to be 36%. During the intervention phase, the average rate of on-task

behavior displayed by the participants at Site 1 rose to 62%. The average effect size for the participants at Site 1 was 2.64. The average PND score for the participants at Site 1 was 78% while the average NAP score was 0.83. Refer to Figure 5 for the average on-task rates for the participants at Site 1 across baseline and intervention phases.

At baseline, the rate of on-task behavior for Participant 1 was observed to be 34%. During the intervention phase, Participant 1's rate of on-task behavior rose to 69%. The effect size of the intervention package for Participant 1 was 2.44. Participant 1's PND score was 89% while her NAP score was 0.93. See Figure 6 for a comparison of Participant 1's on-task rates across all phases of the study.

The rate of on-task behavior for Participant 2 during the baseline phase was observed to be 37%. During the intervention phase, Participant 2's rate of on-task behavior rose to 55%. The effect size of the intervention package for Participant 2 was 2.99. Participant 2's PND score was 67% while his NAP score was 0.75. See Figure 6 for a comparison of Participant 2's on-task rates across all phases of the study.

Site 2

The average rate of on-task behavior during baseline for the participants at Site 2 was observed to be 31%. During the intervention phase, the average rate of on-task behavior by the participants at Site 2 rose to 67%. The average effect size for the participants at Site 2 was 2.65.

The average PND score for the participants at Site 2 was 93% while the average NAP score was 0.94. Refer to Figure 5 for the average on-task rates for the participants at Site 2 across the baseline and intervention phases.

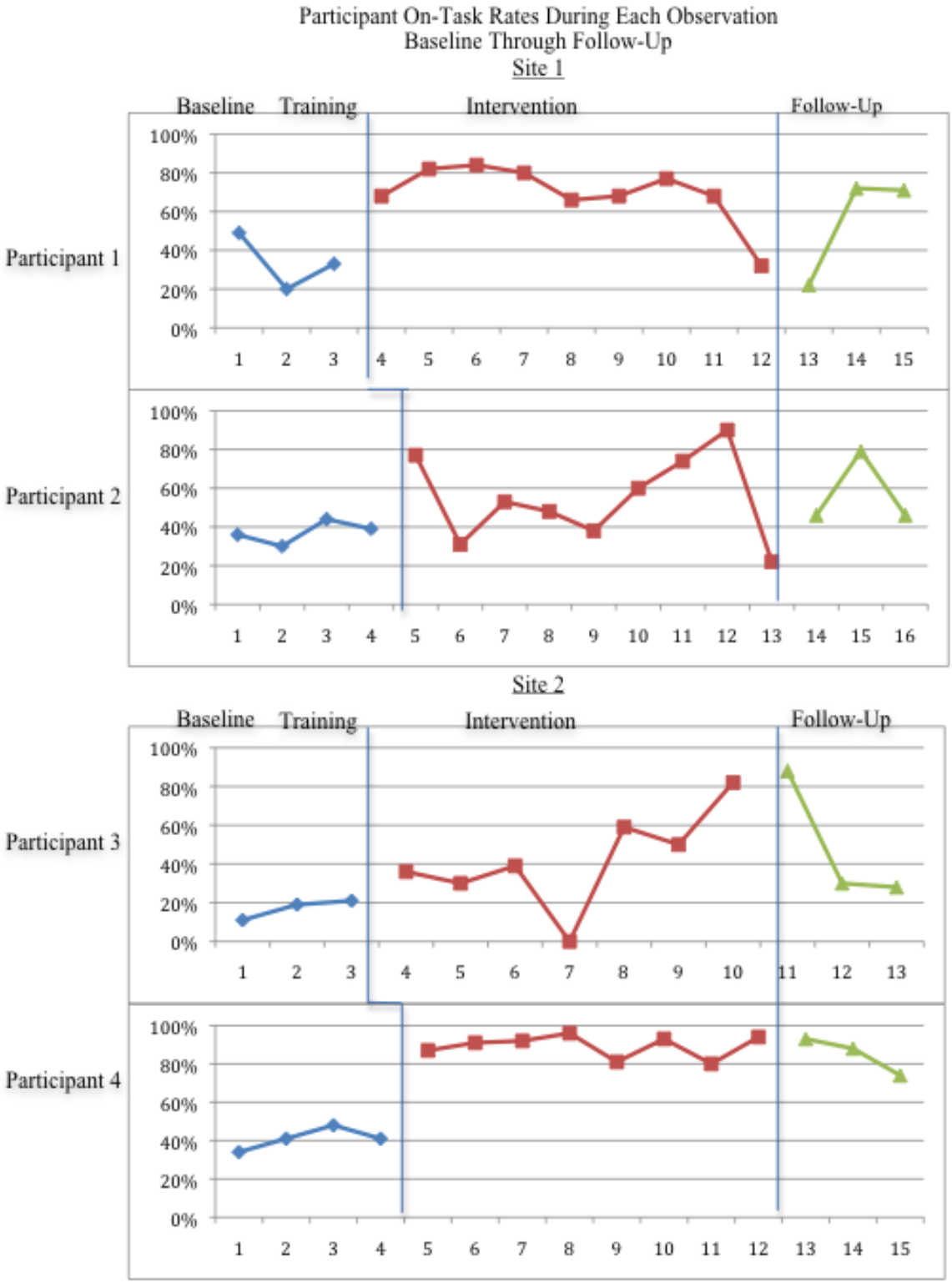


Figure 6. On-Task Rates Recorded During Each Observation Period for Each Participant from Baseline Through Follow-Up (Observation Probes Were Gathered Across 36% of the Intervention Phase Days)

The rate of on-task behavior for Participant 3 was observed to be 17% at baseline. During the intervention phase, Participant 3's rate of on-task behavior rose to 42%. The effect size of the intervention package for Participant 3 was 4.78. Participant 3's PND score was 86% while his NAP score was 0.86. See Figure 6 for a comparison of Participant 3's on-task rates across all phases of the study.

The rate of on-task behavior for Participant 4 during the baseline phase was observed to be 41%. During the intervention phase, Participant 4's rate of on-task behavior rose to 89%. The effect size of the intervention package for Participant 4 was 8.44. Participant 4's PND score was 100% while his NAP score was 1.0. See Figure 6 for a comparison of Participant 4's on-task rates across all phases of the study.

When compared to baseline, the data show that each participant involved in the study exhibited a significant increase in his or her percentage of on-task behavior while receiving the Electronic Home Note Intervention Package. The rates of on-task behavior for each participant in the study across all phases of the multiple-baseline design study are illustrated in Figure 6. The effect sizes across all participants are very large when evaluated using Cohen's standard (1988). The average percentage of nonoverlapping data (PND) score for all participants indicates that the intervention package was fairly effective in increasing rates of on-task behavior while the average probability of nonoverlap of all pairs (NAP) score for all participants indicates that the intervention package had large effects in increasing the on-task rates of the participants in the study (Parker and Vannest, 2009; Scruggs et al., 1986).

Question 2: "Will rates of on-task behavior of participants after receiving the Electronic Home Note Intervention Package be maintained at a 2 week follow-up as measured by direct observation?" *(Originally Question 7 in the dissertation proposal)*

Three follow-up classroom observations were conducted for each participant 2 weeks after the intervention phase was completed. The average on-task rate for all participants at 2 weeks follow-up was 61%. The average rate of on-task behavior displayed by the participants at 2 weeks follow-up was similar to their average rate of on-task behavior of 64% during the intervention phase and was substantially greater than their average rate of on-task behavior of 33% during baseline. Table 1 compares the average on-task rates for all participants during baseline, intervention, and 2 weeks follow-up.

Site 1

The average on-task rate for the participants at Site 1 at 2 weeks follow-up without intervention was 56%. The average rate of on-task behavior displayed by these participants at 2 weeks follow-up was similar to their average rate of on-task behavior of 62% during the intervention phase and greater than their average rate of on-task behavior of 36% during baseline.

At 2 weeks postintervention, Participant 1 had an on-task rate of 55% (see Table 1). Her rate of on-task behavior at 2 weeks follow-up was observed to be less than her rate of on-task behavior of 69% during the intervention phase but greater than

Table 1

Percentage On-Task for Participants Across All Phases of the Study

	Participant 1	Participant 2	Participant 3	Participant 4	Total
Baseline	34%	37%	17%	41%	33%
Intervention	69%	55%	42%	89%	64%
2-Week f/u	55%	57%	49%	85%	61%

her rate of on-task behavior of 34% during baseline.

Participant 2 had an on-task rate of 57% at 2 weeks follow-up (see Table 1). Participant 2's rate of on-task behavior at 2 weeks follow-up was observed to be slightly greater than his rate of on-task behavior of 55% during the intervention phase and was also greater than his rate of on-task behavior of 37% during baseline.

Site 2

The average on-task rate for the participants at Site 2 at 2 weeks follow-up without intervention was 67%. The average rate of on-task behavior displayed by these participants at 2 weeks follow-up was the same as their average rate of on-task behavior of 67% during the intervention phase and greater than their average rate of on-task behavior of 31% during baseline.

At 2 weeks postintervention, Participant 3 had an on-task rate of 49% (see Table 1). His rate of on-task behavior at 2 weeks follow-up was observed to be greater than his rate of on-task behavior of 42% during the intervention phase and was also greater than his rate of on-task behavior of 17% during baseline.

Participant 4 had an on-task rate of 85% at 2 weeks follow-up (see Table 1). Participant 4's rate of on-task behavior at 2 weeks follow-up was observed to be slightly less than his rate of on-task behavior of 89% during the intervention phase and greater than his rate of on-task behavior of 41% during baseline.

These results indicate that the participants' rates of on-task behavior remained above baseline at 2 weeks postintervention. Comparing their rates of on-task behavior during the intervention phase, all participants displayed similar on-task behavior at 2 weeks follow-up compared to the intervention phase; Participant 2 and 3 slightly increased their rates of on-task behavior while Participant 1 and 4 slightly decreased their rates of on-task behavior.

Question 3: "Will rates of on-task behavior for participants after receiving the Electronic Home Note Intervention Package be similar to their peers' on-task behaviors who have not received the Electronic Home Note Intervention Package as measured by response discrepancy observations?"

The data collected during the baseline phase show a significant gap in the average on-task rates of behavior between the participants and their same-gender peers. The average baseline rate of on-task behavior for all participants in this study was observed to be 33%. The average composite rate of on-task behavior for their comparison peers at baseline was 87%. During the intervention phase, the average rate of on-task behavior displayed by all participants based on direct classroom observations rose to 64%. The

average composite rate of on-task behavior for their comparison peers during the intervention phase was 83%. Although the gap between the participants' and their comparison peers' on-task rates was reduced over the course of this study, the participants as a whole did not exhibit on-task rates that were similar to their peers. See Figure 7 for the difference between participant and peer on-task rates for all participants across the baseline and intervention phases.

Site 1

The average rate of on-task behavior during baseline for the participants at Site 1 was observed to be 36%. The average composite on-task rate at Site 1 for their comparison peers at baseline was 86%. During the intervention phase, the average rate of on-task behavior by the participants at Site 1 rose to 62%. The average composite on-task rate for their comparison peers during the intervention phase was 82%. The difference between participant and peer on-task rates at Site 1 across the baseline and intervention phases is illustrated in Figure 7.

At baseline, the rate of on-task behavior for Participant 1 was 34%. During the intervention phase, Participant 1's rate of on-task behavior rose to 69%. The composite on-task rate for her same-gender peers was 87% during baseline and 85% during the intervention phase. See Figure 6 for the on-task rates across all phases of the study for Participant 1.

The rate of on-task behavior for Participant 2 during the baseline phase was 37%. During the intervention phase, Participant 2's rate of on-task behavior rose to 55%. In comparison, the composite on-task rate for his same-gender peers was 84% during

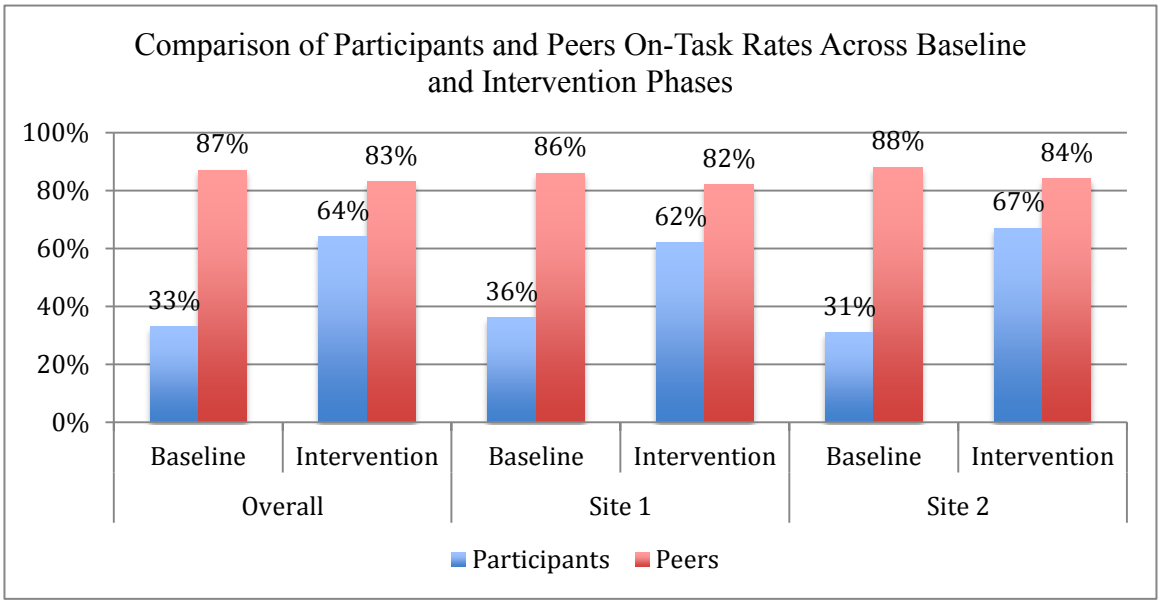


Figure 7. Comparison of On-Task Rates Between All Participants and Peers Across the Study and at Site 1 and 2

baseline and 80% during the intervention phase. See Figure 6 for the on-task rates across all phases of the study for Participant 2.

Site 2

The average rate of on-task behavior during baseline for the participants at Site 2 was observed to be 31%. The average composite rate of on-task behavior for their comparison peers at baseline was 88%. During the intervention phase, the average rate of on-task behavior displayed by the participants at Site 2 rose to 67%. The average composite rate of on-task behavior for their comparison peers during the intervention phase was 84%. The difference between participant and peer on-task rates at Site 2 across the baseline and intervention phases is illustrated in Figure 7.

At baseline, the rate of on-task behavior for Participant 3 was 17%. During the intervention phase, Participant 3's rate of on-task behavior rose to 42%. In comparison,

the composite on-task rate for his same-gender peers was 87% during baseline and 81% during the intervention phase. See Figure 6 for the on-task rates across all phases of the study for Participant 3.

The rate of on-task behavior for Participant 4 during the baseline phase was 41%. During the intervention phase, Participant 4's rate of on-task behavior rose to 89%. In comparison, the composite on-task rate for his same-gender peers was 89% during baseline and 86% during the intervention phase. See Figure 6 for the on-task rates across all phases of the study for Participant 4.

Visual inspection indicates the Electronic Home Note Intervention Package resulted in increases in on-task behaviors across all participants in the study, but on average, these did not rise to the same level of on-task rates of their comparison peers. Participant 4 was the only participant in the study to reach on-task rates that were similar to his same-gender peers.

Question 4: "Will rates of problems completed on individualized curriculum-based math worksheets be higher for participants than baseline problem completion after receiving the Electronic Home Note Intervention Package?"

Across the study, Participants 1, 2, and 3 received individualized curriculum-based math worksheets containing 60 math facts. Participant 4 received individualized curriculum-based math worksheets containing 90 math facts due to his ability to complete more problems on his worksheets during his math seatwork time.

During the baseline phase, the participants in the study completed an average of

15 problems per observation session. The average number of problems completed by all participants rose to 20 during the intervention phase. This result indicates that the average number of items completed increased by 8% during the intervention phase when compared to the baseline phase of the study. In addition, at 2 weeks follow-up, the average number of items completed was 20 across all participants, which increased by 8% from the average number of problems completed during the baseline phase. This result indicates that over the course of the study, the participants, on average, increased the amount of problems they were completing on their individualized math worksheets during independent math seatwork time in their classrooms. The average number of problems completed by all participants during each phase of the study is compared in Table 2.

Site 1

During baseline, the participants at Site 1 completed an average of 7 out of 60 problems per observation session. The average number of problems completed by the participants at Site 1 slightly rose to 9 out of 60 problems during the intervention phase, which was a 3% increase from baseline. At 2 weeks follow-up, the participants at Site 1 completed an average of 8 out of 60 problems, which was a 1% increase from baseline.

At baseline, Participant 1 completed an average of 6 out of 60 problems per observation session. The average number of problems completed by Participant 1 rose to 11 out of 60 problems during the intervention phase, which was an 8% increase from baseline. At 2 weeks follow-up, Participant 1 completed an average of 8 out of 60 problems, which was a 3% increase from baseline. See Table 2 for a comparison of

Table 2

Math Problems Completed for All Participants

	Participant 1	Participant 2	Participant 3	Participant 4	Total
Baseline Completed	6	8	13	32	15
Intervention Completed	11 (+8%)	7 (-1%)	14 (+1%)	50 (+20%)	20 (+8%)
Follow-Up Completed	8 (+3%)	7 (-1%)	34 (+35%)	31 (-2%)	20 (+8%)

problems completed by Participant 1 across all phases of the study.

At baseline, Participant 2 completed an average of 8 out of 60 problems per observation session. The average number of problems completed by Participant 2 fell to 7 out of 60 problems during the intervention phase, which was a 1% decrease from baseline. At 2 weeks follow-up, Participant 2 completed an average of 7 out of 60 problems, which was similar to the intervention phase and remained at a 1% decrease from baseline. See Table 2 for a comparison of problems completed by Participant 2 across all phases of the study.

Site 2

During baseline, the participants at Site 2 completed an average of 22 problems per observation session. The average number of problems completed by the participants at Site 2 rose to 32 problems during the intervention phase, which was a 14% increase from baseline. At 2 weeks follow-up, the participants at Site 2 completed an average of 33 problems, which was a 15% increase from baseline.

At baseline, Participant 3 completed an average of 13 out of 60 problems per

observation session. The average number of problems completed by Participant 3 slightly rose to 14 out of 60 problems during the intervention phase, which was a 1% increase from baseline. At 2 weeks follow-up, Participant 3 completed an average of 34 out of 60 problems, which was a 35% increase from baseline and was also greater than his rate of completed problems during the intervention phase. See Table 2 for a comparison of problems completed by Participant 3 across all phases of the study.

At baseline, Participant 4 completed an average of 32 out of 90 problems per observation session. The average number of problems completed by Participant 4 rose to 50 out of 90 problems during the intervention phase, which was a 20% increase from baseline. At 2 weeks follow-up, Participant 4 completed an average of 31 out of 90 problems, which was a slight 2% decrease from his baseline rate. See Table 2 for a comparison of problems completed by Participant 4 across all phases of the study.

These results indicate that the Electronic Home Note Intervention Package increased the number of problems completed across all participants by 8% from baseline to intervention phases. Increases in work completion were seen across both Site 1 and Site 2 of the study and across 3 of the participants in the study. Participant 2 was the only participant in the study to not show an increase in the number of problems completed on his individualized curriculum-based math worksheets. Maintenance of such effects were seen 2 weeks postintervention across all participants by an 8% increase in problems completed when compared to the baseline phase of the study.

Question 5: "Will rates of problems completed correctly on the individualized curriculum-based math worksheets be higher than baseline problems completed correctly after receiving the Electronic Home Note Intervention Package?"

During the baseline phase, the participants completed an average of 11 problems correctly per observation session. The average number of problems completed correctly by all participants rose to 15 during the intervention phase, which was a 6% increase from baseline. In addition, at 2 weeks follow-up, the average number of items completed correctly rose above both the intervention and baseline phases to an average of 19 across all participants, which was a 12% increase from baseline. These results indicate that the participants, on average, completed more problems correctly on their individualized math worksheets during independent seatwork time in their classroom over the course of the study. The average number of problems completed correctly by all participants during each phase of the study is compared in Table 3.

Site 1

During baseline, the participants at Site 1 completed an average of 3 out of 60 problems correctly per observation session. The average number of problems completed correctly by the participants at Site 1 rose to 7 out of 60 problems correct during the intervention phase, which was a 7% increase from baseline. At 2 weeks follow-up, the participants at Site 1 completed an average of 6 out of 60 problems correctly, which is greater than the baseline phase by 5%.

Participant 1 completed an average of 3 out of 60 problems correctly per

Table 3

Math Problems Correct for All Participants

	Participant 1	Participant 2	Participant 3	Participant 4	Total
Baseline Correct	3	3	11	29	11
Intervention Correct	9 (+10%)	4 (+4%)	12 (+2%)	36 (+8%)	15 (+6%)
Follow-Up Correct	7 (+7%)	5 (+3%)	34 (+39%)	28 (-1%)	19 (+12%)

observation session at baseline. The average number of problems completed correctly by Participant 1 rose to 9 out of 60 problems during the intervention phase, which is a 10% increase from baseline. At 2 weeks follow-up, Participant 1 completed an average of 7 out of 60 problems correctly, a 7% increase from baseline. See Table 3 for a comparison of problems completed correctly by Participant 1 across all phases of the study.

At baseline, Participant 2 completed an average of 3 out of 60 problems correctly per observation session. The average number of problems completed correctly by Participant 2 slightly increased to 4 out of 60 problems during the intervention phase, which was a 2% increase from baseline. At 2 weeks follow-up, Participant 2 completed an average of 5 out of 60 problems correctly, which was a 3% increase from baseline. See Table 3 for a comparison of problems completed correctly by Participant 2 across all phases of the study.

Site 2

During baseline, the participants at Site 2 completed an average of 20 problems correctly per observation session. The average number of problems completed correctly

by the participants at Site 2 rose to 24 problems during the intervention phase, which was a 5% increase from baseline. At 2 weeks follow-up, the participants at Site 2 completed an average of 31 problems correctly, which was a 14% increase from baseline.

At baseline, Participant 3 completed an average of 11 out of 60 problems correctly per observation session. The average number of problems completed correctly by Participant 3 slightly increased to 12 out of 60 problems during the intervention phase, which was a 2% increase from baseline. At 2 weeks follow-up, Participant 3 completed an average of 34 out of 60 problems correctly, which increased from the intervention phase and was a 39% from baseline. See Table 3 for a comparison of problems completed correctly by Participant 3 across all phases of the study.

At baseline, Participant 4 completed an average of 29 out of 90 problems correctly per observation session. The average number of problems completed correctly by Participant 4 rose to 36 out of 90 problems during the intervention phase, which was an 8% increase from baseline. At 2 weeks follow-up, Participant 4 completed an average of 28 out of 90 problems correctly, which was a slight 1% decrease from his baseline rate. See Table 3 for a comparison of problems completed correctly by Participant 4 across all phases of the study.

These results indicate that the Electronic Home Note Intervention Package increased the number of problems completed correctly by 6% from baseline to intervention phases across all participants. Increases in correct problems were seen across both Site 1 and Site 2 of the study and across all participants in the study. Maintenance of such effects was seen at 2 weeks postintervention by an increase of 12% from baseline of the problems completed correctly across all participants as a whole. Participant 4 was the

only participant in the study to exhibit a decrease in his rate of correct problems at 2 weeks postintervention, when compared to baseline, but this decrease was minimal.

Question 6: "Are teachers able to accurately report on-task behavior with the Electronic Home Note when compared to an independent observer?"

During each school day of the intervention phase of the study, teachers were asked to complete the Electronic Home Note for each of their participants. Each teacher rated their participants on four behaviors: on-task, academically engaged, and two optional behaviors chosen by the teacher. Teacher-rated on-task rates with the Electronic Home Note across the same days as independent systematic direct observation probes were collected. A Pearson Product-Moment Correlation Coefficient (Rogers & Nicewander, 1988) between the independent observation probes and teacher-rated on-task rates was calculated to determine the degree of agreement between these two sources. One coefficient was calculated for each participant that included all independent observation probes across the intervention phase. Another coefficient was calculated for each teacher that included all probes across all of their participants. Table 4 summarizes the results of these probes.

Site 1

There was a significant positive correlation between Participant 1 and 2's teacher's ratings of on-task behavior using the Electronic Home Note and the independent observation probes, $r = .897$, $n = 18$, $p < .05$. There was a significant

Table 4

Correlational Coefficients Across All Participants

	Teacher 1	Teacher 2
Participant 1	.708*	------
Participant 2	.966*	------
Participant 3	------	.834*
Participant 4	------	.523

* = Significant at the 0.05 level (2-tailed)

positive correlation for Participant 1's teacher ratings of on-task and the independent observation probes, $r = .708$, $n = 9$, $p < .05$. There was also a significant positive correlation between the teacher's ratings of on-task behavior using the Electronic Home Note and the independent observation probes for Participant 2, $r = .966$, $n = 9$, $p < .05$.

Site 2

There was a significant positive correlation between Participant 3 and 4's teacher's ratings of on-task behavior using the Electronic Home Note and the independent observation probes, $r = .847$, $n = 15$, $p < .05$. There was a significant positive correlation between the teacher's ratings of on-task behavior using the Electronic Home Note and the independent observation probes for Participant 3, $r = .834$, $n = 7$, $p < .05$. There was a positive correlation between the teacher's ratings of on-task behavior using the Electronic Home Note and the independent observation probes for Participant 4, $r = .523$, $n = 8$, $p = .184$ but this correlation was not significant at a 0.05 level.

Teachers' ratings on the Electronic Home Note for on-task behavior were significantly positively correlated with systematic direct observations made by

independent observers in the study. There was a significant positive correlation across 3 participants in the study. Although there was a positive correlation between the teacher's ratings and the systematic direct observations of Participant 4, this was not significant at a 0.05 level. These results indicate that there was a high level of agreement between the on-task ratings made by independent observers using systematic direct observations and the teachers using the Electronic Home Note.

Question 7: "Do parents consistently review data from the Electronic Home Note with their student participant?"

During the intervention phase of the study, parents were asked to review their child's Electronic Home Note data and respond to the researcher, via email, indicating they had reviewed the daily ratings. If a parent sent a response to the researcher, the researcher made the assumption that the parent had reviewed their child's Electronic Home Note data with their child. The average number of reviews made by all parents in the study was 84% across the total possible intervention days indicating that, as a whole, parents reviewed the Electronic Home Note data with their child on a consistent basis.

Site 1

During the intervention, the participants' parents at Site 1 responded an average of 71% of the days in which the Electronic Home Notes were completed. Participant 1's parent responded 27 of the possible 27 intervention days, indicating a 100% response rate for this parent. Participant 2's parent responded 9 of the possible 24 intervention days, indicating a 38% response rate.

Site 2

During the intervention, the participants' parents at Site 2 responded an average of 100% of the days in which the Electronic Home Notes were completed. Participant 3's parent responded 19 of the possible 19 intervention days, indicating a 100% response rate for this parent. Participant 4's parent responded 21 of the possible 21 intervention days, indicating a 100% response rate.

Parent responses to the researcher, via email, indicating they had reviewed the Electronic Home Note ratings with their child, occurred 84% of the time. Participant 1, 3, and 4's parents all responded with 100% consistency throughout the intervention. Participant 2's parent only responded 38% of the time throughout the intervention. Further analysis of the data indicates that Participant 2 made the least amount of improvement at increasing his rate of on-task behavior with the use of the Electronic Home Note Intervention Package. These results indicate that for all parents in the study, except one, consistent review of the Electronic Home Note data with their child took place. Table 5 summarizes the percentage of parent reviews across all participants as well as each participant's rate of improvement in on-task percentage from baseline to intervention phase.

Table 5

Parent Review of Electronic Home Note Data and Improvements in On-Task Percentage

		Parent Review	On-Task Rate During Intervention	Improvement from Baseline
Site 1	Participant 1	100%	69%	35%
	Participant 2	38%	55%	18%
Site 2	Participant 3	100%	42%	25%
	Participant 4	100%	89%	48%

Question 8: "Will participants report positive ratings on the modified Children's Intervention Rating Scale regarding participation in the intervention as measured by mean responses on a six-point Likert scale?"

Each participant involved in the study was asked to fill out a brief social validity questionnaire at the end of the intervention phase of the study. The questionnaire included eight items based on the items included on the Children's Intervention Rating Profile (Elliott, 1986) that had been modified by the researcher to better fit the purposes of this study (see Appendix B). The participants were asked to give their best response to each item on a scale of one through six, which ranged from "strongly disagree" to "strongly agree." Table 6 shows the eight statements on the participant questionnaire and the responses by each participant. Ratings were averaged across participants.

The participants were specifically asked if their experience with the intervention package was positive and helpful by the following items:

1. Teachers using the Electronic Home Note seemed fair.

2. Reviewing my behaviors with my parents was fair.

Table 6

Participant Questionnaire Responses

(Elliot, 1986)

1= Strongly Disagree 2= Disagree 3= Slightly Disagree

4= Slightly Agree 5= Agree 6= Strongly Agree

Statement	Participant 1	Participant 2	Participant 3	Participant 4	Mean
1. Teachers using the Electronic Home Note seemed fair	6	4	6	6	5.50
2. Reviewing my behaviors with my parents was fair	6	3	6	6	5.25
3. Reviewing my behaviors with the school psychologist was fair	6	6	6	6	6.00
4. Having the teacher use the Electronic Home Note caused problems with my friends	1	3	1	1	1.50
5. There are better ways to help me stay focused on my work	6	6	1	2	3.75
6. This would be a good program to use with other kids	6	6	6	6	6.00
7. I like this program to help me stay focused	6	6	5	6	5.75
8. I think the Electronic Home Note helped me do better in school	5	5	6	4	5.00

3. Reviewing my behaviors with the school psychologist was fair.

6. This would be a good program to use with other kids.

7. I like this program to help me stay focused.

8. I think the Electronic Home Note help me do better in school.

The mean score for the items listed above was 5.58. This score indicates that the participants felt their experience in the research study was a positive one. This score also indicates that the participants felt the intervention package helped them to focus and do better in school.

The participants were specifically asked if their experience with the Electronic Home Note Intervention Package was negative by the following items:

4. Having the teacher use the Electronic Home Note caused problems with my friends.

5. There are better ways to help me to stay focused on my work.

Upon reviewing the participants' responses for the item's listed above, Participant 1 and 2 indicated that they felt there might have been a better way to help keep them focused on their work. The mean score for the items was 3.75. The researcher asked what these specific strategies could be and they responded "more rewards" and "easier math and more toys," respectively. This score and consultation indicates that the participants did not feel that their participation in the research study was a negative experience.

The questionnaire each participant completed also included open-ended questions about what they liked and disliked about the Electronic Home Note Intervention Package. When asked what she liked about the Electronic Home Note, Participant 1 stated, "Prize Days." She noted no negative component about the Electronic Home Note. Concerning

what she liked about the program in general, the participant stated, “Everything.” Participant 1 indicated no negative aspect about participation in the intervention program.

To what he liked about the Electronic Home Note, Participant 2 wrote, “good,” indicating a positive experience with the Electronic Home Note and wrote that he liked “all of them” in regards to the components of the program. He did not note any negative component about the Electronic Home Note or about participating in the study.

Concerning the Electronic Home Note, Participant 3 stated, “It helped me stay on task,” but did not indicate aspects that he liked about the intervention package as a whole. Participant 3 did not indicate any negative aspects concerning participation in the study.

To what he liked about the Electronic Home Note, Participant 4 stated, “It tells parents how the day was” and “The teacher can write a note on it.” Participant 4 did not note a negative aspect of the Electronic Home Note or the intervention package.

In general, participants’ ratings concerning their experience with the Electronic Home Note Intervention Package were positive. The participants rated “Reviewing my behaviors with the school psychologist was fair” and “This would be a good program to use with other kids” as the most agreed with statements. “There are better ways to help me stay focused on my school work” was rated as the item least agreed with, but this was still rated in a positive manner. Participant 1 and 2 were the only participants to note any negative comments, thinking more rewards and easier work would help them focus more. The comments made on the open-ended portion of the questionnaire were also positive.

Question 9: "Will parents report positive ratings on the Intervention Rating Scale regarding participation in the intervention as measured by mean responses on a six-point Likert scale?"

Each participant's parent was asked to fill out a brief social validity questionnaire at the end of the intervention phase. The questionnaire included the 24 statements, adapted from the Behavior Intervention Rating Scale (Elliott & Trueting, 1991), for which the parents circled the best response on a scale of one through six, which ranged from "strongly disagree" to "strongly agree" (see Appendix B). Table 7 shows the 24 statements and the responses by each parent. Ratings were averaged across participants.

Parents were specifically asked whether or not improvements in the participant's rates of on-task behavior were apparent while participating in the intervention by the following items on the questionnaire:

3. The intervention proved effective in changing the child's problem behavior.

15. Overall, the intervention was beneficial for the child.

16. The intervention quickly improved the child's behavior.

19. Soon after using the intervention, the teacher would notice a positive change in the problem behavior.

22. When comparing this child with a well-behaved child before and after the use of the intervention, the child's and the peer's behaviors are more alike after using the intervention.

The mean score for these items was 4.65. This score indicates that the parents noticed a positive change in their child's on-task behavior during the intervention phase of this study.

Table 7

Behavior Intervention Rating Scale

(Elliot & Trueting, 1991)

1= Strongly Disagree 2= Disagree 3= Slightly Disagree

4= Slightly Agree 5= Agree 6= Strongly Agree

Statement	Participant 1	Participant 2	Participant 3	Participant 4	Mean
1. This was an acceptable intervention for the child's problem behavior	6	5	6	6	5.75
2. Most parents would find this intervention appropriate for problem behaviors in addition to the ones addressed	5	5	6	6	5.50
3. The intervention proved effective in changing the child's problem behavior	4	4	4	6	4.50
4. I would suggest this intervention to other parents	5	5	6	6	5.50
5. The child's behavior problem was severe enough to warrant the use of this intervention	6	4	6	6	5.50
6. Most parents would find this intervention suitable for the behavior problem addressed	5	4	6	6	5.25
7. I would be willing to use this in the home	4	5	5	6	5.00
8. The intervention did not result in negative side effects for this child	6	5	6	6	5.75
9. The intervention would be an appropriate intervention for a variety of children	4	5	6	6	5.25

Table 7 (Continued)

Statement	Participant 1	Participant 2	Participant 3	Participant 4	Mean
10. The intervention is consistent with those I have used in the home	3	4	5	6	4.50
11. The intervention was a fair way to handle the child's problem behavior	6	5	6	6	5.75
12. The intervention is reasonable for the behavior addressed	6	5	5	6	5.50
13. I like the procedure used in the intervention	6	5	6	6	5.75
14. This intervention was a good way to handle the child's problem behavior	6	4	6	6	5.50
15. Overall, the intervention was beneficial for the child	5	5	5	6	5.25
16. The intervention quickly improved the child's behavior	4	4	4	5	4.25
17. The intervention will produce a lasting improvement in the child's behavior	3	4	4	6	4.25
18. The intervention improved the child's behavior to the point that it would noticeably deviate from other peers' behavior	5	4	4	4	4.25
19. Soon after using the intervention, the teacher would notice a change in problem behavior	5	4	4	6	4.75
20. The child's behavior will remain at an improved level even after the intervention is discontinued	4	4	4	5	4.25

Table 7 (Continued)

Statement	Participant 1	Participant 2	Participant 3	Participant 4	Mean
21. Using the intervention should not only improve the child's behavior in the classroom, but also in other settings (e.g., other classrooms, home)	5	4	5	6	5.00
22. When comparing this child with a well-behaved peer before and after the use of the intervention, the child's and peer's behaviors are more alike after the intervention	5	4	4	5	4.50
23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom	3	4	4	2	3.25
24. Other behaviors related to the problem behavior also are likely to be improved by the intervention	5	4	4	5	4.50

Parent's responses concerning the Electronic Home Note Intervention Package were positive. Only one item received a mean score below a four or "slightly agree." The item was:

23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom.

All other items on the parent questionnaire received a mean score of 4.25 or higher. These results indicate a positive overall level of satisfaction with the process, effect, and outcome of the intervention package.

The questionnaire also included open-ended questions about what the parents liked and disliked about the Electronic Home Note Intervention Package. Participant 1's parent did not complete the open-ended questions. When asked what aspects she liked about the intervention, Participant 2's parent stated, "The time spent with [Participant 2]." The parent noted no negative component about the intervention. Concerning what the parent liked about the Electronic Home Note, the participant's parent stated that is was "fast and easy." Participant 2's parent did not indicate any negative aspects about the Electronic Home Note. Further analysis of the data indicates that Participant 2's mother was the only parent to not report that she had reviewed the Electronic Home Note data with her child 100% of the intervention days but still found the intervention to be beneficial to her child.

When asked what aspects she liked about the intervention, Participant 3's parent stated, "The daily communication/progress. Being able to discuss with my child the reports, watching him show signs of being proud of his good work." The parent noted the only negative component about the intervention was that it was "Over too soon."

Concerning what the parent liked about the Electronic Home Note, the participant's parent stated that "The communication helped to know how to approach and open dialog with my son about his day," and "Being able to add notes to reports," indicating an interest in the communication between the home and the school. Participant 3's parent did not indicate any negative aspects about the Electronic Home Note.

When asked what aspects she liked about the intervention, Participant 4's parent stated, "Being informed ASAP of my child's day." The parent noted the only negative component about the intervention was that the parent "Would like more comments listed more often from the teacher." Concerning what this parent liked about the Electronic Home Note, she stated, "It was consistent and convenient. My child couldn't forget it or hide it from me." Participant 4's parent did not indicate any negative aspects about the Electronic Home Note. At the bottom of the parent questionnaire, the parent also wrote "I like this very much and hope it can be implemented into every day school."

In general, parents reported positive ratings on the parent questionnaire and all comments tended to be positive. Of the statements, the parents rated "This was an acceptable intervention for the child's problem behavior," "The intervention did not produce any negative side effects for this child," "The intervention is reasonable for the behavior addressed," and "I like the procedure used in the intervention" as the statements that were most agreed with. "The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom" was the least agreed with statement. The only negative comments made indicated that parents wished the intervention would have been implemented over a longer duration and more comments be made by their child's teacher. More specifically, items that focused on

whether or not the intervention had a positive effect on their child's classroom behaviors were given positive ratings. These results indicate that the parents involved in the study recognized an improvement in their child's rates on-task behavior.

Question 10: "Will teachers report positive ratings on the Intervention Rating Scale regarding participation in the intervention as measured by mean responses on a six-point Likert scale?"

Each participant's teacher was asked to fill out a brief social validity questionnaire at the end of the intervention phase. The questionnaire included the 24 statements, adapted from the Behavior Intervention Rating Scale (Elliott & Trueting, 1991), for which the teachers circled the best response on a scale of one through six, which ranged from "strongly disagree" to "strongly agree" (see Appendix B). Table 8 shows the 24 statements and the responses given by each teacher. Ratings are also averaged across participants. Participants 1 and 2 were in the same class and Participant 3 and 4 had the same teacher, therefore only one questionnaire was completed by each of these teachers.

The teachers were specifically asked about whether or not improvements in the participant's rates of on-task behavior were apparent while participating in the intervention by the following items on the questionnaire:

3. The intervention proved effective in changing the child's problem behavior.

15. Overall, the intervention was beneficial for the child.

16. The intervention quickly improved the child's behavior.

19. Soon after using the intervention, the teacher would notice a positive change

Table 8

Behavior Intervention Rating Scale

(Elliot & Trueting, 1991)

1= Strongly Disagree 2= Disagree 3= Slightly Disagree

4= Slightly Agree 5= Agree 6= Strongly Agree

Statement	Participant 1 & 2's Teacher	Participant 3 & 4's Teacher	Mean
1. This was an acceptable intervention for the child's problem behavior	5	5	5.0
2. Most teachers would find this intervention appropriate for problem behaviors in addition to the ones addressed	5	5	5.0
3. The intervention proved effective in changing the child's problem behavior	4	4	4.0
4. I would suggest this intervention to other parents	4	6	5.0
5. The child's behavior problem was severe enough to warrant the use of this intervention	6	6	6.0
6. Most teachers would find this intervention suitable for the behavior problem addressed	3	5	4.0
7. I would be willing to use this in a classroom setting	4	5	4.5
8. The intervention did not result in negative side effects for this child	6	6	6.0
9. The intervention would be an appropriate intervention for a variety of children	4	5	4.5
10. The intervention is consistent with those I have used in classroom settings	5	5	5.0
11. The intervention was a fair way to handle the child's problem behavior	3	5	4.0
12. The intervention is reasonable for the behavior addressed	3	5	4.0
13. I like the procedure used in the intervention	5	6	5.5
14. This intervention was a good way to handle the child's problem behavior	3	5	4.0
15. Overall, the intervention was beneficial for the child	5	4	4.5
16. The intervention quickly improved the child's behavior	3	4	3.5

Table 8 (Continued)

Statement	Participant 1 & 2's Teacher	Participant 3 & 4's Teacher	Mean
17. The intervention will produce a lasting improvement in the child's behavior	3	4	3.5
18. The intervention improved the child's behavior to the point that it would noticeably deviate from other peers' behavior	2	5	3.5
19. Soon after using the intervention, a teacher would notice a change in problem behavior	4	4	4.0
20. The child's behavior will remain at an improved level even after the intervention is discontinued	4	3	3.5
21. Using the intervention should not only improve the child's behavior in the classroom, but also in other settings (e.g., other classrooms, home)	4	3	3.5
22. When comparing this child with a well-behaved peer before and after the use of the intervention, the child's and peer's behaviors are more alike after the intervention	5	4	4.5
23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom	4	3	3.5
24. Other behaviors related to the problem behavior also are likely to be improved by the intervention	4	4	4.0

in the problem behavior.

22. When comparing this child with a well-behaved child before and after the use of the intervention, the child's and the peer's behaviors are more alike after using the intervention.

22. When comparing this child with a well-behaved child before and after the use of the intervention, the child's and the peer's behaviors are more alike after using the intervention.

The mean score for these items was 4.10. This score indicates that the teachers noticed a positive change in the participants' on-task behavior during the intervention phase of this study.

The teachers' responses about the intervention package were generally positive. Six items received a mean score below a four or "slightly agree." Those items were:

16. The intervention quickly improved the child's behavior

17. The intervention will produce lasting improvements in the child's behavior

18. The intervention improved the child's behavior to the point that it would noticeably deviate from other classmate's behavior

20. The child's behavior will remain at an improved level even after the intervention is discontinued

21. Using the intervention should not only improve the child's problem behavior in the classroom, but also in other settings (e.g., other classrooms, home)

23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom

All other items on the teacher questionnaire received a mean score of 4.00 or

higher. These results indicate a positive overall level of satisfaction with the process, effect, and outcome of the intervention package but a lack of optimism in the quickness, generalization, and maintenance of the intervention effects.

The questionnaire that each teacher completed also included open-ended questions about what they liked and disliked about the intervention package. When asked what aspects they liked about the intervention, Participant 1 and 2's teacher stated, "It was only 15 minutes in the day," "Quick and easy," and "No paperwork." As a negative component, the teacher noted "I would have liked to have discussed the homenote with the student before I sent it home," and the intervention "Was just a 'snapshot' of the student's day." Concerning what the teacher liked about the Electronic Home Note, the participants' teacher stated that is was "Quick and easy - no paperwork," and the "Daily communication with home." Of what the teacher did not like about the Electronic Home Note, Participant 1 and 2's teacher indicated "I would have liked to have seen some kind of data regarding the interaction at home (info shared; goals set; positives discussed)."

When asked what aspects they liked about the intervention, Participant 3 and 4's teacher stated that the intervention was "Fast and on the computer." The teacher did not note any negative component about the intervention package. Concerning what the teacher liked about the Electronic Home Note, the participants' teacher stated, "That it was electronic and I had email reminders." Participant 3 and 4's teacher did not indicate any negative aspects about the Electronic Home Note.

In general, teachers reported positive ratings on the teacher questionnaire and most comments tended to be positive. Of specific statements, the teachers rated "The child's behavior problem was severe enough to warrant use of this intervention" and

"The intervention did not result in negative side effects for this child" as being the most agreed with statements. The statements that were least agreed with tended to be about the quickness, generalizability, and maintenance of the intervention effects. Moreover, negative comments indicated that the teachers wished they were more involved in the planning and implementation of the intervention. Items that focused on whether or not the intervention had a positive effect on the participants' classroom behaviors were given positive ratings and comments about the Electronic Home Note and the intervention package as a whole were based on the ease and quickness of the implementation of the intervention. These results indicate that the teachers involved in the study recognized an improvement in the participants' rates on-task behavior.

Question 11: "Will participants indicate that the office reinforcement sessions they take part in are enjoyable and beneficial to them as measured by their mean responses on the Fun 'O' Meter?"

At the end of each office reinforcement session with their program implementer, participants evaluated the session for helpfulness and fun by marking the Fun 'O' Meter (see Appendix D). On the Fun 'O' Meter, the participants rated each session as falling into one of five different categories. These categories listed from most helpful to least helpful were: "Great," "Go For It!," "Getting Better," "Ouch!," and "No Help." For the purpose of evaluating the participants' ratings, each category was assigned a numerical value with "Great" receiving the value of 4 and "No Help" receiving a value of 0. Table 9 shows the average Fun 'O' Meter rating for each participant in the study.

Results indicate the participants' average rating of the office reinforcement

Table 9

Average Participant Fun 'O' Meter Ratings

(Jenson & Sprick, 2014)

0= No Help 1= Ouch! 2= Getting Better

3= Go For It! 4= Great!

Site 1

Participant 1	Participant 2
3.91	3.20

Site 2

Participant 3	Participant 4
3.20	3.50

sessions was 3.46. Additionally, the participants' ratings do not vary significantly by site. At Site 1 the average rating was 3.57 and at Site 2 the average rating was 3.35. These scores indicate that the participants in the study viewed the office reinforcement sessions as being both helpful and beneficial.

Reliability

To ensure interrater agreement, an observation training session was conducted between the two independent observers. The previously described observation training video was used to practice performing the observations. Practice observations were repeated until a minimum interrater reliability of 0.80 was achieved. During the first observation, the observers were able to establish interrater reliability estimates higher than 0.80. Cohen's Kappa, which corrects for chance agreement, was used to calculate interrater reliability. An agreement plus disagreement model was also calculated for the observation (see Table 10). Refer to the Data Analysis section for each statistical

Table 10

Interrater Reliability for Training Video

Cohen's Kappa	Agreement + Disagreement
0.82	0.94

calculation formula.

To ensure interrater reliability was maintained throughout the study, two independent observers collected data for each participant simultaneously across 39% of the study's sessions. A Cohen's Kappa reliability coefficient of .78 was achieved between the independent observers across all observations. An Agreement + Disagreement reliability coefficient of .89 was achieved across all observations between the independent observers. These are represented in Table 11.

Table 11

Interrater Reliability Through Cohen's Kappa and Agreement + Disagreement

For All Participants

	Participant 1	Participant 2	Participant 3	Participant 4	Overall
Cohen's Kappa	0.71	0.72	0.89	0.58	0.78
Agreement + Disagreement	0.88	0.86	0.96	0.92	0.89

DISCUSSION

Introduction

Students who are struggling in the classroom are, on average, missing more than a third of the academic instruction their peers receive due to experiencing academic and behavioral difficulties (Rhode et al., 2010). It is evident that these students will continue to experience academic and behavioral difficulties without proper interventions in place. Within an MTSS model, these students may receive Tier 2 services; they are at risk, may "fall between the academic cracks," are typically in need of extra support but do not qualify for special education services (Jenson & Sprick, 2014). With interventions designed to promote attentiveness and academic efficiency through positive reinforcements, these students can improve their functioning within the classroom. Kilgus (2013) recommends that Tier 2 interventions incorporate assessment, intervention, and communication components. The home note intervention incorporates these by being a form of progress monitoring, being an evidence-based intervention designed to promote academic and behavioral success in the classroom, and by providing communication between the school and home (Campbell, Rodriguez, Anderson, & Barnes, 2013).

Each participant involved in the study displayed high rates of off-task behavior at the baseline phase of the study. After each participant entered the intervention phase of the study, each participant displayed increased rates of on-task behavior as well as moderate improvement in academic achievement.

Previous Research

The home note is an evidence-based intervention due to the abundance of research literature supporting its use in many different contexts (U.S. Department of Education, 2004). An early review by Atkenson and Forehand (1979) compiled the existing research literature and gave direction for future research. These researchers found the home note intervention to be effective at decreasing a variety of disruptive behaviors and increasing both positive behaviors and academics. Across 21 studies, they found the communication between the home and school to be a critical component within the intervention and also the importance of providing tangible reinforcements to students. The Smith et al. (1983) review of the home note intervention also provided guidelines for its use and future directions for research. Since these reviews, the research literature and uses for the home note intervention have expanded.

Research has indicated that the home note intervention is effective at promoting positive behaviors in many contexts. Jurbergs et al. (2007) found positive effects with the home note intervention at increasing attending skills with elementary students while McGoey et al. (2007) found beneficial effects for decreasing disruptive behaviors within a kindergarten classroom. With academics, Galloway and Sheridan (1994) found increases in work completion and accuracy when using a home note intervention in conjunction with a conjoint-behavioral consultation piece while Dougherty and Dougherty (1977) found beneficial effects on homework completion rates. In regards to age, beneficial effects can be seen from the kindergarten level, into elementary school, and further in secondary school (Fabiano, 2014; McGoey et al., 2007; Owens et al., 2012).

The Vannest et al. (2010) meta-analysis examined much of the literature on behavioral home notes and found large positive effects with the use of the home note intervention. Across 17 published studies, they found a 61% improvement from baseline to intervention phases in reducing problematic behaviors and increasing positive behaviors. Like Atkenson and Forehand (1979), these researchers found that studies with a high degree of home-school collaboration produced significantly more improvement in behaviors over time compared to studies that had a low degree of collaboration. They also found no superiority in intervention effects across behaviors or ages of participants.

Several authors have also published practical reviews of the research literature. Kelley (1990) produced one of the first books on the home note intervention for educators in practical settings. Since this review, other researchers have analyzed factors for constructing a home note and implementation factors of the intervention (Jenson & Reavis, 1996; Vannest et al., 2011). Volpe and Fabiano's (2013) book provides the most current review of the literature, along with construction and implementation factors, and how educators can best use this intervention in their preferred setting.

Construction Controversies

Research on the home note intervention is dense but home note construction is still in need of further research development. Early research found tangible rewards within a home note intervention to be more effective than praise and teacher feedback alone (Bailey et al., 1970; Schumaker et al., 1977). A controversy exists in whether or not to include a response cost system within the home note. While early studies found response cost components within a home note to be superior to a home note without a

response cost (Kelley & McCain, 1995; McCain & Kelley, 1994), more recent studies have struggled to find such effects (Jurbergs et al., 2007).

Another construction controversy exists in the type of scale within a home note. Two types of scales exist within the literature: a qualitative scale, summative and retrospective ratings of behaviors, and a quantitative scale, counting occurrences of behaviors. Meta-analytic research indicates that qualitative scales produce greater intervention effects (Vannest et al., 2010). This is possibly due to ease of administration while still maintaining the accuracy of rating behaviors (Riley-Tillman, Chafouleas, Sassu et al., 2008; Riley-Tillman, Chafouleas, Briesch et al., 2008). Although the research indicates the superiority of qualitative scales within a home note, the research literature has found that home note interventions that use quantitative rating scales can be effective at reducing problematic behaviors and these are still being used (McGoey et al., 2007; Owens et al., 2012).

Implementation Considerations

When implementing a home note intervention, several factors should be considered. Parent and teacher support for the intervention has been found to be a moderating factor for the effectiveness of the intervention (Clarke et al., 2013; Vujonic et al., 2013). Meta-analytic research found that high rates of collaboration and communication between the home and school produce superior effects compared to interventions that have low levels of collaboration (Vannest et al., 2010). Such collaboration has also been shown to produce greater rates of support by parents and teachers (Clarke et al., 2013; Martens et al., 1985). Although this should be a goal for

implementation, home note interventions that are unable to incorporate home support have still been shown to produce positive effects (Lahey, Gendrich, Gendrich, Schnelle, Gant, & McNees, 1977).

Another consideration for the home note intervention is the student's willingness to participate in the intervention. Jenson and Reavis (1996) discussed several motivational components to promote buy-in from students, but paper home notes, what most of the research literature has used, is subject to forgery and being lost. Gable (2002) and Williams et al. (2012) have produced the only known research studies to examine the effects of an electronic version of a home note intervention. Both studies found positive effects of the electronic versions of a home note intervention that eliminated the forgery and loss concerns inherent with paper versions.

The Electronic Home Note Intervention Package

The Electronic Home Note Intervention Package incorporates much of the research on home note interventions while considering methodological and implementation factors. The construction of the Electronic Home Note Intervention Package followed research-based guidelines for home notes with scale construction, item wording, and behavioral specificity. It incorporates the Mystery Motivator and Reward Spinner motivational components to promote participant buy-in (Jenson & Reavis, 1996; Riley-Tillman et al., 2009; Vannest et al., 2010). Research and practical components of parent and teacher trainings were also incorporated into the Electronic Home Note Intervention Package due to findings indicating the superiority and lasting behavioral effects of including these components (Grady, 2013; Vujonic et al., 2013). Finally, the

Electronic Home Note Intervention Package incorporated an electronic version of a home note designed to eliminate the concerns of losing/forging a home note and to promote collaboration between the home and the school. The creation of the Electronic Home Note follows practical guidelines set forth by Cooper (2010).

Study Findings

This study was designed to analyze the effects of the Electronic Home Note Intervention Package for behavioral and academic improvements with 4 participants in the general education classroom during independent math seatwork time. The study evaluated the agreement between teacher ratings with the Electronic Home Note and independent observer ratings using systematic direct observations. The study also evaluated how consistently parents reviewed the Electronic Home Note data with their child. In addition, the study analyzed the acceptability of the Electronic Home Note Intervention Package through participant, parent, and teacher social validity ratings. Each research question was answered through this study.

Results of this study indicate that the Electronic Home Note Intervention Package produced increased rates of on-task behavior for all participants in the study. The average on-task rate for all participants increased from 33% to 64% resulting in an intervention effect size of 2.63. This indicates that the Electronic Home Note Intervention Package had a large effect at increasing on-task behavior across the participants. These effects were maintained for all participants at 2 weeks follow-up without intervention. Despite these large effects, Participant 4 was the only participant in the study to achieve on-task rates that were similar to his peers.

Moderate academic improvements were found with the use of the Electronic Home Note Intervention Package. Individual math work completion rates increased 8% with the use of the intervention while accuracy rates increased by 6%. Completion rates were maintained at 2 weeks follow-up while rates of accuracy increased to a 12% improvement from baseline. It should be noted that work completion and accuracy were not directly reinforced in this study. Teachers' ratings of on-task behavior with the Electronic Home Note were similar to ratings made by external observers through systematic direct observations and parents consistently reviewed Electronic Home Note ratings with their child.

High intervention acceptability was found across all participants, parents, and teachers in the study. Social validity ratings indicate that all participants, parents, and teachers involved in the study found the intervention to be easy to use and produced improvements in classroom functioning. Comments made by teachers and parents also indicated that they wished they were more involved in the intervention and wanted the intervention to be implemented after the study was completed.

Reliability between independent observers was easy to establish and was maintained throughout the study. Participant 4's Cohen's Kappa reliability coefficient was the only one to fall well below the 0.80 criterion, but this was due to the limitations of this statistic; because of the high rates of on-task behavior exhibited by Participant 4, the chance factor this statistic corrects for also increased. Therefore, if any disagreements between the independent observers occurred, the chance factor would reduce the coefficient dramatically. An agreement + disagreement coefficient was also used for reliability purposes and this coefficient for all participants met the 0.80 criterion.

Study Comparisons

Building upon previous studies that used electronic versions of home notes, the Electronic Home Note Intervention Package effectively increased the rates of on-task behavior in all 4 participants in the study. Williams et al. (2012) and Gable (2002) found decreased disruptive behaviors in the classroom using different ways of creating an electronic version of a home note. Unlike previous studies, the current study consistently used direct observations of on-task behavior to analyze intervention effects while also assessing the intervention effects on academics. The current study also builds upon previous studies using electronic versions of home notes by finding similar ratings between independent observers' ratings of on-task behaviors and teachers' ratings on the Electronic Home Note.

The effectiveness of the Electronic Home Note Intervention Package to increase on-task behavior, as demonstrated in this study, compares favorably to previous reviews that analyzed the positive behavioral effects of paper versions of a home note (Atkenson & Forehand, 1979; Vannest et al., 2010). Like previous studies, there was a significant increase in on-task behavior within this study. This study further extends the research literature to support the use of an electronic version of a home note intervention to increase on-task behavior. Furthermore, the positive behavioral effects at 2 weeks postintervention found in this study add to the existing research literature supporting the lasting effects of the home note intervention.

The moderate increase in academic performance that was demonstrated in this study is similar to findings in other studies that involved studying the academic effects of using a home note (Blechman et al., 1981; Johnson, 2008). Specifically, these findings

are similar to Campbell, Rodriguez, Anderson, and Barnes (2013). These researchers found that with using a check-in/check-out system with a home note that was designed to promote positive classroom behaviors, all 3 participants decreased their level of disruptive behaviors, while 2 of the 3 participants secondarily increased their level of academic engagement. Being that the Electronic Home Note Intervention Package is designed to develop positive behavioral skills, these nonreinforced academic effects are most likely secondary to the increases in positive behaviors in the classroom. Future studies should consider contingently reinforcing academics as DuPaul, Gormley, and Laracy (2014) stated "the success of school-based interventions is judged not only on reduction of disruptive, off-task behavior, but also with respect to improvement in the completion and accuracy of academic work" (p. 688).

The current study also contributes to the research literature for teacher and parent trainings within the Electronic Home Note Intervention Package. Both factors have been noted in the research literature to positively affect the success of a home note intervention (Schlientz et al., 2009; Hagermoser Sanetti, Collier-Meek, Long, Kim, & Kratochwill, 2014; Grady, 2013). The Electronic Home Note Intervention Package provides trainings to teachers in how to complete the Electronic Home Note for each of their participants while parents were provided training in how to appropriately discuss their child's daily ratings.

Parental review of the Electronic Home Note data with their child was also analyzed through this study. The researcher made the assumption that if parents responded to the researcher, via email, indicating that they had reviewed the Electronic Home Note data with their child, that the parents completed this component of the

intervention. Superior positive effects were found for all participants whose parent consistently reviewed the Electronic Home Note data versus the one participant's parent who did not indicate this to the researcher. This supports previous research findings that parental adherence to intervention guidelines is more of a predictor of participant gains than simply being a part of the intervention (Clarke et al., 2013).

The current study also found high acceptability of the Electronic Home Note Intervention Package through participant, teacher, and parent perspectives. This is consistent with previous research and supports the acceptability of the Electronic Home Note Intervention Package from a parent and teacher perspective while adding to the research literature by examining the acceptability of a home note intervention from the student's perspective (Gable, 2002; Johnson, 2008; Martens et al., 1985; Williams et al., 2012). These findings are possibly due to the improvements in positive behaviors while providing direct communication between the home and school. Through open-ended questions, the parents noted that the Electronic Home Note Intervention Package provided information to discuss with their child with no concern of it being lost or forged, the teachers stated that Electronic Home Note Intervention Package was a quick and easy intervention that produced positive behavior effects, and the participants found it to be a fun experience.

Contributing Factors

The success of the Electronic Home Note Intervention Package is not surprising given the previous research with home notes on increasing on-task rates, decreasing disruptive behaviors, and increasing academic engagement (Blechman et al., 1981;

Vannest et al., 2010). As part of the Electronic Home Note Intervention Package, the Electronic Home Note and other contributing intervention components are used. Therefore, it is difficult to know the exact causes for the increase in on-task behavior and academic engagement displayed by each participant in the study as several factors other than the Electronic Home Note may have contributed to the success of the Electronic Home Note Intervention Package.

Self-efficacy theory postulates that people gather information about their own efficacy based on personal accomplishments and other factors (Schunk, 1991). These researchers note that personal successes may raise efficacy while failures lower it. Depending on the self-efficacy of an individual, the impact of such successes and failures varies. Each participant was required to set an on-task behavioral goal which they would like to achieve. During office reinforcement sessions built into the Electronic Home Note Intervention Package, each participant self-plotted ratings on their Self-Plotting Graph with their goal line on it. Every time a participant had an office reinforcement session, they were able to gauge their successes and failures by self-plotting their performances throughout the intervention.

Parental support throughout the intervention can be described as a contributing factor to the success of the Electronic Home Note Intervention Package. Research indicates that with greater home-school collaboration, the improvement rates of individuals receiving a home note intervention increases (Grady, 2013; Vannest et al., 2010). Review of daily ratings across all intervention days was indicated by 3 of the parents involved in the study and these 3 participants had the three largest increases in on-task percentage through the use of the Electronic Home Note Intervention Package.

The parents in this study also used the Electronic Home Note as a way of communicating with the researcher and teacher, via email, about homework assignments and accommodations in the classroom, supporting the Electronic Home Note as being an acceptable communication tool.

The Electronic Home Note Intervention Package is also designed to be a very positive experience for the students involved. The Electronic Home Note Intervention Package incorporates motivational components such as the Reward Spinner, Reward Menu, and Mystery Motivator. Jenson and Reavis (1996) described considerations for incorporating such motivational components into an intervention and these guidelines were used to promote participant success in the Electronic Home Note Intervention Package. The researcher and volunteer educator both noted that the participants in the study would often be at their door before school started to take part in their office reinforcement session and receive a prize and they would often question their program implementer about what the Mystery Motivator was.

Adult praise was also incorporated into the Electronic Home Note Intervention Package as parents were taught appropriate ways to praise their child for positive ratings on the Electronic Home Note. Bowen et al. (2004) noted that such adult praise is an effective form of positive reinforcement that communicates recognition of appropriate behaviors and generalizing such behaviors to other settings.

The Electronic Home Note Intervention Package produced lasting improvements in positive classroom behaviors that contributed to the participants being more attentive during independent math seatwork time. The intervention received high acceptability ratings from participants, teachers, and parents and provided a form of communication

between the home and school. On-task ratings on the Electronic Home Note were also found to be similar to independent observations of on-task behavior, these ratings were consistently reviewed between parents and their child, and these were not subject to being lost or forged.

Limitations

The Electronic Home Note Intervention Package used in the study utilized several evidence-based research techniques to increase rates of on-task behavior and academic achievement; however, certain limitations were inherent in the study and should be noted. Findings of this study are limited by a small sample size. Although the study took place in two separate school research sites, only 4 participants spanning third through sixth grade were used. This calls into question the generalizability of these results to other students or age groups. Future studies using a wider variety of participants should be considered.

Intervention effects were seen as participants increased their academic completion rates and accuracy over the course of the study. However, this could be due to practice effects as each participant completed at least 25 curriculum-based math worksheets containing similar math concepts across all phases of the study. Thus, the resulting practice may have contributed to the gains in accuracy and completion rates of these worksheets.

The findings in this study are also limited due to reactivity effects; each participant was observed by independent observers (the research or the volunteer educator) in their general education classroom during independent math seatwork time

and this may have affected the outcome of the study. During the baseline phase of the study, each participant was unaware of the intentions of these independent observers because they had not received their Participant Orientation at this time. As each participant entered the intervention phase, they received this orientation and they may have reacted differently to the presence of the independent observers in their classroom. Thus, increases in positive behaviors and academic engagement may have been due to the reactivity of each participant towards the independent observers during the intervention phase. A multiple probe design was employed to help decrease the likelihood of reactivity effects but this limitation is still present.

Similar to the previous limitation, the researcher and volunteer educator were the primary observers throughout each phase of the study and this may have indirectly had an effect on the study's results. Their presence may have affected teachers' ratings on the Electronic Home Note when they were present for observations. A multiple probe design was used to decrease the likelihood of these effects and teachers' ratings of on-task behavior had a strong positive correlation with the independent observations.

Because the Electronic Home Note ratings made by the teacher only assessed a 15-minute independent seatwork time during math instruction for each participant, it is difficult to conclude that the effects of the Electronic Home Note Intervention Package can be generalized across each participant's school day. Previous research suggests small increments of behavioral evaluations may help reduce overestimation of behaviors within observation timeframes (Riley-Tillman, Christ, Chafouleas, Boice-Mallach, & Briesch, 2011). To help prevent inaccurate ratings of behaviors, Kilgus (2013) recommends expanding the use of DBR ratings, as were included in the Electronic Home Note, over

time from a small portion of the day to across the entire day to help promote teacher buy-in and fidelity.

Future Research Considerations

Results of the present study add to the present research literature. Future considerations should expand upon the results of this study and the research literature. Schumaker et al. (1977) found that tangible rewards were important for improvements over time with the use of a home note intervention. In the present study, motivational components within the Electronic Home Note Intervention Package allowed students to obtain rewards for simply checking in with their program implementer. Thus, these rewards were not contingent on behavioral or academic performance. Future research should examine the behavioral and academic effects of contingent rewards for students. Kilgus (2013) recommends establishing clear criteria for any rewards that will be used with such an intervention and incremental benefits of a contingent reward system, as seen in Owens et al. (2012), should be considered to examine if students can continue to achieve greater goals of behavioral and academic success.

Results of the present study suggest that the use of the Electronic Home Note Intervention Package was successful at increasing on-task behavior and academic performance during independent math seatwork time. Meta-analytic research indicates that to help generalize the effects of a home note intervention, ratings should span across multiple hours of the day (Vannest et al., 2010). Parent and teacher feedback also indicated a desire for such expansion of the Electronic Home Note to rate behaviors across other classroom activities. Future research should use the Electronic Home Note

during various classroom activities such as reading and writing to examine if this study's results can be generalized to other academic areas.

The current study examined the effects of the Electronic Home Note Intervention Package for 4 participants spanning the third through sixth grades. As noted under the Limitations section, a small sample size limits one's ability to generalize the results to a wide range of students and across grade levels. Future research should use a larger sample size to examine participant's behavioral and academic improvements with the Electronic Home Note Intervention Package.

Future research should incorporate more teacher integration into the Electronic Home Note Intervention Package. Teacher training was a component integrated into the Electronic Home Note Intervention Package to promote teacher buy-in and academic and behavior success of students. Teacher feedback to the researcher on the Behavior Intervention Rating Scale indicated that teachers would also like to be more involved in the planning, implementation, and feedback to the participants. Previous research indicates that more planning, training, and performance feedback on a teacher-level may promote more teacher buy-in as well as the quality of treatment implementation (Hagermoser Sanetti et al., 2014; Holdaway & Owens, 2014). Future research should implement a Teacher Orientation Session designed to be more consultation-focused rather than training-focused and the Electronic Home Note Intervention Package should provide more feedback to the teachers of their students' performances with the intervention. Witt, Noell, LaFleur, and Mortensen (1997) incorporated daily teacher feedback of student performance in the form of graphs and could be used as a model for future research.

Another consideration for future research would be allowing the participants to know their teacher's ratings of their behaviors immediately. Participants in the study received two forms of feedback of their academic and behavioral successes. The first was with their parents, on a daily basis, but this occurred after the participant was out of school. The second feedback session occurred during office reinforcement sessions with each participant's program implementer. These occurred twice weekly. As per the study design, if parents did not review the Electronic Home Note ratings with their child, each participant would only receive two forms of feedback weekly. This was generally the case with Participant 2 who made the least amount of improvements in his on-task behavior. To promote further generalization of intervention effects, future research should implement more feedback to the participants at numerous times in the day. A check-in/check-out system has incorporated home-note intervention components to increase the amount of feedback to students and could be used as a model for future research designs (Campbell, Rodriguez, Anderson, & Barnes, 2013).

Another direction for future research would be to provide the Electronic Home Note Intervention Package to various school professionals in a range of fields to manage problematic classroom behaviors. These could be regular education teachers, special education teachers, behavioral specialists, etc. Feedback and data obtained by these professionals could then be compared to the current study's results.

A self-monitoring component could also be incorporated in the Electronic Home Note Intervention Package. Such interventions begin by teaching students to monitor and record their own behaviors and comparing their ratings to teacher's ratings of their behavior (DuPaul, Gormley, & Laracy, 2014). Research has indicated that self-

monitoring components can promote both academic and behavioral functioning in the classroom (Harris, Friedlander, Saddler, Frizzelle, & Graham, 2005). Future research should consider the addition of this component to help promote greater recognition from participants of their own behavioral functioning through the use of the Electronic Home Note Intervention Package.

APPENDIX A

CONSENT LETTERS

Parental Permission for Initial Observation

BACKGROUND
The purpose of this study is to increase the on-task behavior and enhance the academic achievement of children who display high rates of off-task behavior in the classroom. In order to determine if your child would be a quality candidate for participation in this study, I would like permission for trained school professionals to observe your child in his or her classroom and have their teacher complete a behavioral questionnaire. You may preview this questionnaire if you wish.

STUDY PROCEDURE
With your permission, these persons will observe and record the percentage of time that your child spends paying attention to his or her academic work. Your child will be given an individualized math worksheet to complete while they are being observed. Every effort will be made during these observations not to set any child apart from the other children. The children will know that someone is visiting their class, but will not know that any one child is being observed specifically.

After the observations have been completed, the researcher will contact you with the results. At that time, the researcher will let your know if your child is considered to be a quality candidate for the study. Only a limited number of children will be able to participate in the study. If it is observed that your child would be a quality candidate, the researcher will explain the procedures involved in the intervention program and invite you to have your child participate in the study. If you choose not to have your child participate or if your child is not observed to be a quality candidate for the study, you will still be given the option of having the researcher provide you or your child's teacher with consultation concerning your child's classroom behavior.

Duration: The observations will be conducted during regular school hours while your child is engaged in academic work. Each observation is recorded for 15 minutes, and a total of three observations are needed from three to four different days. These observations will be conducted over a period of one week.

RISKS
Potential risks involved in class observation include disruption to the class and embarrassment or self-consciousness at having someone watch the class.

BENEFITS
Potential benefits include the opportunity to participate in a research project designed to increase on-task behavior and academic achievement in the classroom.

CONFIDENTIALITY
Only your child's first name will be recorded on the observation form. Observation forms of children who do not participate in the study will be destroyed. Methods for maintain confidentiality of children who do go on to participate in the study will be communicated to you prior to you making a decision regarding being included in the study.

PERSON TO CONTACT
If you have questions, complaints or concerns about this study, you can contact James Knorr at (801) 230-7112. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at (801) 581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

VOLUNTARY PARTICIPATION
It is up to you to decide whether to allow your child to take part in this study. Refusal to allow your child to participate or the decision to withdraw your child from this research will involve no penalty or loss of benefits to which your child is otherwise entitled nor will it affect your or your child's relationship with the investigator. There are no costs or compensation for study participation.

Withdrawal: After giving initial consent, consent can be withdrawn at any time by sending a written note to your child's teacher asking that no further observations be done on your child and/or calling me at (801) 230-7112. If you withdraw consent, any observation forms that have already been filled out on your child will be destroyed immediately.

Your permission to observe your child in class will be greatly appreciated. I hope that the study will prove helpful for many children.
Sincerely,

James Knorr
Graduate Student in Educational Psychology
University of Utah

CONSENT
By signing this consent form, I confirm that I have read the information in this parental permission form and have had the opportunity to ask questions. I will be given a signed copy of this parental permission form. I voluntarily agree to allow my child to be observed in his or her classroom as part of this study.

_____
Child's Name

_____
Parent/Guardian's Name

_____ _____
Parent/Guardian's Signature Date

_____
Relationship to Child

_____
Name of Researcher or Staff

_____ _____
Signature of Researcher or Staff Date

Parent Consent for Study Participation

BACKGROUND

The purpose of this study is to increase your child's on-task behavior and academic achievement in the classroom. This study will involve having your child's behaviors recorded through the use of an electronic version of a home note. A home note is a communication system designed to allow the school to rate a student on their classroom behavior and share this information with the student's home. Throughout the study, we will be calling this system the "Electronic Home Note." Your child's regular education math teacher will give ratings on the Electronic Home Note only during independent seatwork time. You should review these ratings with your child nightly. The researcher or a trained school professional will also review these ratings twice weekly with your child. One goal of this study is to increase your child's ability to remain on-task in the classroom by having them model appropriate on-task behavior to the researcher and review their ratings with their parent, the researcher, and a trained school professional. By increasing the time that your child remains focused on his or her work, it is also the goal of this study to enhance your child's academic performance.

STUDY PROCEDURES

Participating in the study would include the following: 1) continued classroom observations, 2) taking your child to a quiet room to review their teacher's ratings of their behavior, 3) your child completing individualized math worksheets based on their abilities and their teacher's recommendations, 4) your child receiving coaching, encouragement, and reinforcement from the researcher or a trained school professional, 5) making copies of your child's math worksheets, 6) the researcher or a trained school professional periodically consulting with the teacher concerning your child's classroom behavior, 7) your child filling out a brief questionnaire about being in the study, 8) yourself filling out a brief questionnaire about the study, and 9) having the classroom teacher fill out a brief questionnaire about the study. You may preview these questionnaires if you wish.

Meeting with your child to review their ratings with the researcher or a trained school professional during office sessions will involve your child coming to an office for about 5 minutes a day, twice a week for approximately 4 weeks. These sessions will include reviewing your child's behavioral ratings, coaching behavioral expectations, tracking your child's behavior on their individual graph, and receiving reinforcement for achieving behavioral goals. These times will take place before school begins or during a time in which the teacher agrees is appropriate. During these weeks, your child will be monitored with the Electronic Home Note. At the end of the four weeks, your child, their teacher, and yourself will be asked to fill out a brief questionnaire about the study. This should only take about 10 minutes. Your child will be observed in the classroom multiple times before and during the weeks that his or her behaviors are being monitored through the Electronic Home Note. Follow-up observations of your child will be conducted approximately 2 weeks after your child's last Electronic Home Note observation.

RISKS

Participation in this study is completely optional, and at your own discretion. If you think you would like your child to participate, I would appreciate it if you would discuss it with him/her

and include him/her in making this decision. The major disadvantage is your child feeling singled out as being inattentive or disruptive. Your child may also feel uncomfortable about missing a part of a classroom activity if a meeting before school does not occur but collaboration between the researcher and your child's teacher will be made to ensure that no instructional time will be lost due to these meetings.

BENEFITS

Possible benefits from participating in the study include focusing more on school work, which could in turn help them feel better about themselves and school, as well as the possibility of increasing his or her academic performance.

CONFIDENTIALITY

Observation forms will only contain the child's first name, written in pencil. After the study is completed, data will be analyzed your child will be assigned a number name such as "Participant 1" or "Participant 2", etc. Names on the original observation recording forms and the math worksheets collected during the study will be changed to their assigned number name, and your child will only be referred to by their assigned number name when reporting the results of this study. Through teacher observations on the Electronic Home Note, names will be changed to their assigned number name following the conclusion of the study. Except for the original consent forms; no documents will be kept that contain your child's name. The researcher will keep the consent forms secure in a locked file in his office.

PERSON TO CONTACT

If you have questions, complaints, or concerns about this study, you can contact James Knorr at (801) 230-7112. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at (801) 581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns that you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

VOLUNTARY PARTICIPATION

It is up to you to decide whether to allow your child to take part in this study. Refusal to allow your child to participate or the decision to withdraw your child from this research will involve no penalty or loss of benefits to which your child is otherwise entitled nor will it affect you or your child's relationship with the investigator.

Withdrawal: After giving initial consent, consent can be withdrawn at any time by sending a written note to your child's teacher asking that no further observations be done on your child and/or calling me at (801) 230-7112. If you withdraw consent, any observation forms that have already been filled out on your child will be destroyed immediately.

COSTS AND COMPENSATION TO PARTICIPANTS

There are no costs or compensation for study participation. The anticipated conclusion of this study is Spring 2014. After the study is completed, I would be happy to share the results with you, as well as any possible recommendations for your child.

CONSENT

By signing this consent form, I confirm that I have read the information in this parental permission form and have had the opportunity to ask questions. I will be given a signed copy of this parental permission form. I voluntarily agree to allow my child to take part in this study.

_____
Child's Name

_____
Parent/Guardian's Name

_____ _____
Parent/Guardian's Signature Date

_____
Relationship to Child

_____
Name of Researcher or Staff

_____ _____
Signature of Researcher or Staff Date

Assent to Participate in the Study

Who are we and what are we doing?
We are from the University of Utah. We would like to ask if you would be in a research study. A research study is a way to find out new information about something.

Why are we asking you to be in this research study?
We would like to ask you to be in a research study because we are trying to learn more about how to help students to stay focused on their work and to do better on their assignments.

What happened in the research study?
If you are willing to be in this study and your parents agree, this is what will happen. You will meet with a school professional twice a week for about five minutes each time. If you are unable to meet before school begins, you can meet during the school day at a time your teacher agrees is acceptable. When you are out of class you will review the ratings given by your teacher of how your behaviors are in the classroom. During the study, your teacher will be using an Electronic Home Note that will help track your behaviors while you are working on your assignments. Your parents will also review your behaviors with you nightly. At times, there will be researchers in your classroom observing the class. At the end of this study, we will ask you questions about how you liked being in this program. These activities will last about 4 weeks.

Will any part of the research study hurt you?
It is possible that being part of this study may make you feel like you are different because it is difficult for you to stay focused on your assignments. You may also feel uncomfortable being removed from your classroom.

Will the research study help you or anyone else?
Being in this study will help us to understand if the different activities that we do in this study will help students to stay focused on their assignments. Being in this study may also help you to keep focused on the work your teacher gives you, finish more of your work, and help you to feel better about your ability to do well at school.

Who will see the information about you?
All of the information from this study will be kept locked up in my office so that only the people helping me with this project will see them. Your name will not be used on any papers that people other than those helping me on this project will see.

What if you have any questions about the research study?
You can ask any questions that you have about the study. If you have a question later that you didn't think of now, you can call me, James Knorr (801) 230-7112 or ask me next time we meet.

Do you have to be in the research study?
If you don't want to be in this study, you don't have to be in it. Remember, being in this study is up to you and no one will be upset if you don't want to be in it. You can change your mind later if you want to stop. Please talk about this with your parents before you decide if you would like

to do it. We will also ask your parents to give their permission for you to be in this study. Even if your parents say “yes” you can still decide not to do this.

Consent

I was able to ask questions about this study. Signing my name at the bottom means that I agree to be in this study. My parents and I will be given a copy of this form after I have signed it.

Printed Name

Sign your name on this line | Date

Printed Name of Person Obtaining Assent

Signature of Person Obtaining Assent | Date

The following should be completed by the study member conducting the assent process if the participant agrees to be in the study. Initial the appropriate selection:

_____ The participant is capable of reading the assent form and has signed above as documentation of assent to take part in this study.

_____ The participant is not capable of reading the assent form, but the information was verbally explained to him/her. The participant signed above as documentation of assent to take part in this study.

Teacher Consent Form

BACKGROUND

The purpose of this study is to increase students' on-task behavior and academic achievement in the classroom. This study will involve having each participant's behaviors rated through the use of an electronic version of a home note and a paper version of a home note. A home note is a communication system designed to allow teachers to rate a student on their classroom behavior and share this information with the student's home. Throughout the study, we will be calling this the "Electronic Home Note." As part of the study, each participant will review your ratings from the Electronic Home Note with their parents and the researcher or a trained school professional. The Electronic Home Note will only be used while the participants are working on independent seatwork in math. One goal of this study is to increase each participant's ability to remain on-task in the classroom by having him or her model appropriate on-task behavior and review their teacher's ratings of their own classroom behavior with multiple people. By increasing the time each participant remains focused on his or her work, it is also the goal of this study to enhance the participant's academic performance.

STUDY PROCEDURE

Your participation in this study would include the following: 1) rating your participant's in class behaviors through the use of the Electronic Home Note during independent seatwork time in math, 2) your participant completing individualized curriculum based math worksheets during independent seatwork time, 3) scheduled observations conducted in your classroom during independent seatwork time in math, 4) your participant leaving the classroom occasionally in order to participate in office sessions if the participant is unable to meet before school begins, 5) two brief meetings with the researcher concerning the intervention program, and 6) completion of a behavioral questionnaire concerning the participant and a brief questionnaire concerning the intervention.

Throughout the study, you will begin to provide your participant with individualized curriculum based math worksheets to be completed during independent math seatwork time. During the first week, your participant will be monitored by the researcher or a volunteer educator for on-task behaviors. Office sessions will not occur at this time and this information will not be shared with the participant or their parents. After this first week and if the participant qualifies for the study, you will begin to monitor the participant with the Electronic Home Note. Meetings with your participant to review their ratings with the researcher or a trained school professional during office sessions will begin at this time. These will involve your participant coming to an office for about 5 minutes a day, twice a week for approximately 4 weeks. These sessions will include reviewing your participant's behavioral ratings as rated by you, coaching behavioral expectations, tracking your participant's behavior on their individual graph, and receiving reinforcement for reviewing their behavioral ratings. These times will take place before school begins or during a time in which you agree is appropriate. At the end of the four weeks, your participant, their parent, and yourself will be asked to fill out a brief questionnaire about the study. This should only take about 10 minutes. Your participant will be observed in the classroom multiple times before and during the weeks that his or her behaviors are being monitored through the Electronic Home Note. Follow-up observations of your participant will be conducted approximately 2 weeks after your participant's last Electronic Home Note

observation. The participant will once again complete the curriculum based math worksheets while being observed by the researcher or a volunteer educator.

RISKS
Participation in this study is completely optional, and at your own discretion. Participation in the study may result in loss of time due to completion of the Electronic Home Note, the two brief meetings with the researcher, and completion of the questionnaires.

BENEFITS
Possible benefits from participating in the study include increases in your participant's ability to focus on schoolwork, which could in turn help them to feel better about themselves and school. Increased time spent focused on schoolwork could also lead to increases in academic performance.

CONFIDENTIALITY
After the study is completed, data will be analyzed and each participant and teacher will be assigned a corresponding number name such as "Participant 1" and "Teacher 1", etc. Names on the original observation recording forms, math worksheets, and questionnaires collected during the study will be changed to their assigned number name, and the participants and teachers will only be referred to by their assigned number name when reporting the results of this study. Except for the original consent forms; no documents will be kept that contain your name. The researcher will keep the consent forms secure in a locked file in his office.

PERSON TO CONTACT
If you have questions, complaints, or concerns about this study, you can contact James Knorr at (801) 230-7112. If you feel you have been harmed as a result of participation, please call my faculty advisor Dr. William R. Jenson at (801) 581-7148. If Dr. Jenson is unavailable please leave a message and your call will be returned as soon as possible.

Institutional Review Board: Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns that you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

Research Participant Advocate: You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

VOLUNTARY PARTICIPATION
It is up to you to decide whether to take part in this study. Refusal to participate or the decision to withdraw from this research will involve no penalty or loss of benefits to which you are otherwise entitled. This will not affect your relationship with the investigator. There are no costs or compensation for study participation.

COSTS AND COMPENSATION TO PARTICIPANTS
There are no costs or compensation for study participation. The anticipated conclusion of this study is Spring 2014. After the study is completed, I would be happy to share the results with you, as well as any possible recommendations for your participant.

CONSENT

By signing this consent form, I confirm that I have read the information in this consent form and have had the opportunity to ask questions. I will be given a signed copy of this consent form. I voluntarily agree to take part in this study.

_____

Printed Name of Teacher Participant

_____ _____

Signature of Teacher Participant Date

_____

Printed Name of Person Obtaining Consent

_____ _____

Signature of Person Obtaining Consent Date

APPENDIX B

QUESTIONNAIRES

Intervention Rating Scale

Please evaluate the intervention by circling the number which best describes your agreement or disagreement with each statement. You must answer each question.

1= Strongly Disagree
2= Disagree
3=Slightly Disagree
4= Slightly Agree
5= Agree
6= Strongly Agree

1.	This was an acceptable intervention for the child's problem behavior.	1	2	3	4	5	6
2.	Most teachers would find this intervention appropriate for behavior problems in addition to the one addressed.	1	2	3	4	5	6
3.	The intervention proved effective in changing the child's problem behavior.	1	2	3	4	5	6
4.	I would suggest the use of this intervention to other teachers.	1	2	3	4	5	6
5.	The child's behavior problem was severe enough to warrant use of this intervention.	1	2	3	4	5	6
6.	Most teachers would find this intervention suitable for the behavior problem addressed.	1	2	3	4	5	6
7.	I would be willing to use this in a classroom setting.	1	2	3	4	5	6
8.	The intervention did not result in negative side effects for this child.	1	2	3	4	5	6
9.	The intervention would be an appropriate intervention for a variety of children.	1	2	3	4	5	6
10.	The intervention is consistent with those I have used in classroom settings.	1	2	3	4	5	6
11.	The intervention was a fair way to handle the child's problem behavior.	1	2	3	4	5	6
12.	The intervention is reasonable for the behavior problem addressed.	1	2	3	4	5	6
13.	I like the procedure used in the intervention.	1	2	3	4	5	6
14.	This intervention was a good way to handle this child's behavior problem.	1	2	3	4	5	6
15.	Overall, the intervention was beneficial for the child.	1	2	3	4	5	6

16. The intervention quickly improved the child's behavior.	1	2	3	4	5	6
17. The intervention will produce a lasting improvement in the child's behavior.	1	2	3	4	5	6
18. The intervention improved the child's behavior to the point that it would noticeably deviate from other classmate's behavior.	1	2	3	4	5	6
19. Soon after using the intervention, a teacher would notice a positive change in the problem behavior.	1	2	3	4	5	6
20. The child's behavior will remain at an improved level even after the intervention is discontinued.	1	2	3	4	5	6
21. Using the intervention should not only improve the child's problem behavior in the classroom, but also in other settings (e.g., other classrooms, home).	1	2	3	4	5	6
22. When comparing this child with a well-behaved peer before and after use of the intervention, the child's and the peer's behaviors are more alike after the intervention.	1	2	3	4	5	6
23. The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom.	1	2	3	4	5	6
24. Other behaviors related to the problem behavior also are likely to be improved by the intervention.	1	2	3	4	5	6

What are the aspects of this intervention that you like?

What, if anything, did you not like about the intervention?

What did you like about the Electronic Home Note Package?

What, if anything, did you not like about the Electronic Home Note Package?

Adapted from the BIRS (Elliot & Trueting, 1991)

Intervention Rating Scale

Please evaluate the intervention by circling the number which best describes your agreement or disagreement with each statement. You must answer each question.

1= Strongly Disagree
2= Disagree
3=Slightly Disagree
4= Slightly Agree
5= Agree
6= Strongly Agree

1.	This was an acceptable intervention for the child's problem behavior.	1	2	3	4	5	6
2.	Most parents would find this intervention appropriate for behavior problems in addition to the one addressed.	1	2	3	4	5	6
3.	The intervention proved effective in changing the child's problem behavior.	1	2	3	4	5	6
4.	I would suggest the use of this intervention to other parents.	1	2	3	4	5	6
5.	The child's behavior problem was severe enough to warrant use of this intervention.	1	2	3	4	5	6
6.	Most parents would find this intervention suitable for the behavior problem addressed.	1	2	3	4	5	6
7.	I would be willing to use this in the home setting.	1	2	3	4	5	6
8.	The intervention did not result in negative side effects for this child.	1	2	3	4	5	6
9.	The intervention would be an appropriate intervention for a variety of children.	1	2	3	4	5	6
10.	The intervention is consistent with those I have used in the home settings.	1	2	3	4	5	6
11.	The intervention was a fair way to handle the child's problem behavior.	1	2	3	4	5	6
12.	The intervention is reasonable for the behavior problem addressed.	1	2	3	4	5	6
13.	I like the procedure used in the intervention.	1	2	3	4	5	6
14.	This intervention was a good way to handle this child's behavior problem.	1	2	3	4	5	6
15.	Overall, the intervention was beneficial for the child.	1	2	3	4	5	6

16.	The intervention improved the child's behavior to the point that it would noticeably deviate from other peers' behavior.	1	2	3	4	5	6
17.	The intervention quickly improved the child's behavior.	1	2	3	4	5	6
18.	The intervention will produce a lasting improvement in the child's behavior.	1	2	3	4	5	6
19.	Soon after using the intervention, the teacher would notice a positive change in the problem behavior.	1	2	3	4	5	6
20.	The child's behavior will remain at an improved level even after the intervention is discontinued.	1	2	3	4	5	6
21.	Using the intervention should not only improve the child's problem behavior in the classroom, but also in other settings (e.g. other classrooms, home).	1	2	3	4	5	6
22.	When comparing this child with a well-behaved peer before and after use of the intervention, the child's and the peer's behaviors are more alike after the intervention.	1	2	3	4	5	6
23.	The intervention produced enough improvement in the child's behavior so the behavior no longer is a problem in the classroom.	1	2	3	4	5	6
24.	Other behaviors related to the problem behavior also are likely to be improved by the intervention.	1	2	3	4	5	6

What are the aspects of this intervention that you like?

What, if anything, did you not like about the intervention?

What did you like about the Electronic Home Note Package?

What, if anything, did you not like about the Electronic Home Note Package?

Adapted from the BIRS (Elliot & Trueting, 1991)

The Children's Intervention Rating Scale

1= Strongly Disagree
2= Disagree
3=Slightly Disagree
4= Slightly Agree
5= Agree
6= Strongly Agree

1.	Teachers using the Electronic Home Note seemed fair.	1	2	3	4	5	6
2.	Reviewing my behaviors with my parents was fair.	1	2	3	4	5	6
3.	Reviewing my behaviors with the school psychologist was fair.	1	2	3	4	5	6
4.	Having the teacher use the Electronic Home Note caused problems with my friends.	1	2	3	4	5	6
5.	There are better ways to help me to stay focused on my work.	1	2	3	4	5	6
6.	This would be a good program to use with other kids.	1	2	3	4	5	6
7.	I like this program to help my stay focused.	1	2	3	4	5	6
8.	I think the Electronic Home Note helped my do better in school.	1	2	3	4	5	6

What did you like about the Electronic Home Note Package?

What didn't you like about the Electronic Home Note Package?

What did you like about this program?

What didn't you like about this program?

Adapted from CIRP (Elliot, 1986)

Student:

Child Information Questionnaire

I would appreciate if you would please answer the following questions about your child. Answering any of these questions is optional, but the information will be helpful to me when interpreting the results of the study. All information will be kept confidential. And any identifiers will be removed.

1. Has your child ever been diagnosed with a learning or attention problem?

   If so, what type?

2. Is your child currently on medication?

   If so, what type?

3. Has your child ever received any medication for attention problems?

   If so, what type?

Is there any other information about your child that you feel might be helpful for

APPENDIX C

OBSERVATION FORM

Tough Kid Tool Box

REPRODUCIBLE 7-8

Behavior Observation Form

Target Student _____ M/F _____ Grade _____

School _____ Teacher _____ Date _____

Observer _____ Position _____

Class Activity _____

❑ Teacher-directed whole class ❑ Teacher-directed small class ❑ Independent work session

DIRECTIONS: Each box represents a ten-second interval. Observe each student **once**, then record the data. This is a partial interval recording. If possible, collect data for the full 15 minutes under a teacher-directed or independent condition. If this is not possible, put a slash when the classroom condition changes. **Classmates observed must be the same sex as the target student.**

	1						2						3					
Target Student																		
Peer*																		
	4						5						6					
Target Student																		
Peer*																		
	7						8						9					
Target Student																		
Peer*																		
	10						11						12					
Target Student																		
Peer*																		
	13						14						15					
Target Student																		
Peer*																		

*Randomly selected classmate of the same sex

NOTE: To observe class, begin with the first same-sex student in row 1. Record each subsequent same-sex student in following intervals. Data reflect an average of classroom behavior. **Skip unobservable students.**

ON-TASK CODES: Eye contact with teacher or task and performing the requested task.

OFF-TASK CODES:

T = **Talking Out/Noise:** Inappropriate verbalization or making sounds with object, mouth, or body.
O = **Out of Seat:** Student fully or partially out of assigned seat without teacher permission.
I = **Inactive:** Student not engaged with assigned task and passively waiting, sitting, etc.
N = **Noncompliance:** Breaking a classroom rule or not following teacher directions within 15 seconds.
P = **Playing With Object:** Manipulating objects without teacher permission.
+ = **Positive Teacher Interaction:** One-on-one positive comment, smiling, touching, or gesture.
- = **Negative Teacher Interaction:** One-on-one reprimand, implementing negative consequence, or negative gesture.
/ = **Neutral Teacher Interaction:** One-on-one expressionless teacher interaction, no approval or disapproval expressed, directions given.

See pp. 121 and 122 for suggestions for use.

APPENDIX D

FUN ‘O’ METER

Tutoring Fun-O-Meter

Date:_____ Subject:_____

Great!

Go For It!

Getting Better

Ouch!

No Help

APPENDIX E

CURRICULUM-BASED MATH WORKSHEETS

Curriculum-Based Assessment Mathematics
Single-Skill Computation Probe: Student Copy

Student:

Date: _____

31 +47	67 +20	24 +73	72 +20	53 +25	10 +67
32 +66	38 +40	21 +27	62 +22	64 +11	27 +61
67 +21	56 +31	27 +50	31 +34	20 +68	35 +63
47 +30	41 +46	12 +65	41 +45	30 +58	27 +60
76 +23	22 +54	10 +57	33 +24	22 +62	51 +26

11 +63	57 +31	25 +72	14 +73	32 +57	36 +50
30 +57	37 +40	12 +75	27 +61	24 +22	41 +12
42 +32	10 +47	40 +41	73 +14	23 +64	82 +27
14 +22	27 +61	27 +51	48 +30	22 +61	44 +15
25 +62	13 +10	67 +20	26 +73	51 +32	45 +32

APPENDIX F

CHECKLISTS

Teacher: Site:
Date:

Orientation Session Checklist
Teacher

1. **On the first day when meeting with a teacher, welcome him/her and tell him/her about the Electronic Home Note Package intervention**

   - ☐ Indicate it is a program to help students to be on-task in their classroom and work more efficiently
   - ☐ Indicate that the Electronic Home Note is an online way to record students' on-task and classroom efficiency behavior
   - ☐ Have the teacher choose two optional behaviors to be monitored through the Electronic Home Note
   - ☐ Optional behavior #1:
     _____
   - ☐ Optional behavior #2:
     _____
   - ☐ Inform the teacher that the participant's parents will also be involved with the program and they will be able to view their participant's behavioral ratings daily
   - ☐ Inform the teacher that the parent will review the ratings given by the teacher with the participant daily
   - ☐ Inform the teacher that the participant will be rewarded randomly by the researcher for having reviewed the ratings with their parents

2. **Teach the teacher how to correctly use the Electronic Home Note**

   - ☐ Show the teacher what the Electronic Home Note will look like for their participant
   - ☐ Have the teacher access the web address where their participant's Electronic Home Note will be located
   - ☐ Have the teacher save the webpage to their desktop
   - ☐ Show the teacher how to rate behaviors on the Electronic Home Note
   - ☐ Indicate to the teacher that the Comments section is for general comments and any homework assignments
   - ☐ Show the teacher how to send the Electronic Home Note; indicating that the data will be sent to the participant's parents and uploaded to an Excel spreadsheet for the researcher
   - ☐ Orient the teacher to what the confirmation page looks like

3. **Show the teacher what the parents will receive based on the teacher's ratings**

- ☐ Have the teacher view an email based upon the ratings the teacher submits on their Electronic Home Note
- ☐ Show the teacher how the parents will reply to the email, indicating they have reviewed the ratings with their participant
- ☐ Show the teacher what a "Prize Day Email" looks like

4. Have the teacher practice using the Electronic Home Note

- ☐ Have the teacher model how to access the Electronic Home Note webpage
- ☐ Have the teacher create mock ratings based on the "On-Task," "Academically Engaged," and their two optional behaviors
- ☐ Have the teacher make mock comments in the Comments section of the Electronic Home Note
- ☐ Have the teacher submit the Electronic Home Note
- ☐ Have the teacher view the mock Electronic Home Note ratings that would be seen by the parents

5. Plan for the creation of the curriculum-based math worksheets

- ☐ Review the Acuity Predictive Assessment data with the teacher
- ☐ Ask what math facts the participant is working on in class
- ☐ Reach an agreement on specific math facts to be used when generating the curriculum-based math worksheets
- ☐ Indicate that the participant is to work on these worksheets during independent seatwork time
- ☐ Indicate that the participant should only be allowed 15 minutes to complete as much of the worksheet as they can
- ☐ Indicate that after the 15 minutes, the teacher should collect the worksheet and the researcher will collect it from them
- ☐ Inform the teachers they should complete their Electronic Home Note ratings after they have collected the participant's worksheet

6. Review the BASC-2-TF and Teacher Consent Cover letter

- ☐ Review the BASC-2-TF and how to complete this questionnaire
- ☐ Review the Teacher Consent letter
- ☐ Ask for any questions regarding the study or their role in the study

Specific Math Facts for the participant to work on during the research:

Participant: Site:
Date:
Parent Email:

Orientation Session Checklist
Parent

1. **On the first day when meeting with a parent, welcome him/her and tell him/her about the Electronic Home Note Package intervention**

   - ☐ Indicate it is an intervention to help students to be on-task in the classroom and work more efficiently
   - ☐ Indicate that the Electronic Home Note is an online way to record students' on-task and classroom efficiency behavior
   - ☐ Inform the parent that the participant will be monitored on "On-Task" and "Academically Engaged," and the two optional behaviors indicated by the teacher
   - ☐ Inform the parent that they will also be involved with the program and will be able to view the participant's behavioral ratings daily
   - ☐ Inform the parents that the ratings will only be given via email submitted through the Electronic Home Note program
   - ☐ Inform the parent that they will review with their participant the daily ratings given by teacher
   - ☐ Inform that parent that the participant will be rewarded randomly by the researcher or a volunteer educator for having reviewed the ratings with their parent

2. **Show the parent the Electronic Home Note for their participant**

   - ☐ Have the parent indicate what email address they would like the Electronic Home Note ratings to be forwarded to (on the top of this form)
   - ☐ Show the parent what the Electronic Home Note will look like for their participant
   - ☐ Indicate that ratings are based on ratings given by the teacher
   - ☐ Indicate that the ratings are on a scale of 1 – 10 with anchors of "Never" and Always" at 1 and 10, respectively
   - ☐ Indicate that the teacher has the option to type general comments and homework assignments in the Comments section of the Electronic Home Note

3. **Show the parents what Electronic Home Note ratings in their email will look like**

   - ☐ Submit a mock Electronic Home Note to the parent's email address

- ☐ Have the parent open their email and find the Electronic Home Note rating email
- ☐ Have the parent view the ratings and indicate the ratings of each behavior and any comments made from the teacher
- ☐ Ask for any questions on how to read the email
- ☐ Indicate to the parent that they are to review these ratings with their participant
- ☐ Show the parent how to reply to the researcher's email to inform the researcher that the ratings have been viewed by the parent and reviewed with their participant
- ☐ Indicate that a "Prize Day Email" will be automatically generated via a "vacation responder" by the researcher on random days
- ☐ Show the parent what a "Prize Day Email" will look like after they submit their response email to the researcher

4. Teach the parents how to appropriately review the Electronic Home Note with their participant

- ☐ Inform the parents they are able to show their participant the email they received which reported the behavioral ratings indicated by the teacher
- ☐ Inform the parent that only praise should be given to the participant based on their ratings and that physical reinforcements will be given by the researcher or volunteer educator
- ☐ Inform the parent that they should use a positive and natural way of reporting the ratings to the participant
- ☐ Sample Script:
  "Your teacher indicated that you were ___% on-task today during math class and you used _____ % of your class time well during this class. You also had a ____% rating for ____ behavior (optional behavior #1) and ____% for your _____ behavior (optional behavior #2)
- ☐ Inform the parent how to express to their participant that a prize is available for reviewing the Electronic Home Note with them
- ☐ Inform the parent that they should use a natural and positive way of reporting that a prize is available
- ☐ Sample Script:
  "*Because you reviewed your behavioral ratings with me, I have been told there is a prize day available at school tomorrow. Make sure to go to the Prize Day office tomorrow morning to see if you get a prize. Keep up the good work and congratulations!"*

5. Review the Parental Permission form

- ☐ Review the Parental Permission form
- ☐ Ask for any questions regarding the study or their role in the study

Participant: Site:
Date:

Orientation Session Checklist
Participant

1. **On the first day when meeting with the participant, welcome him/her and tell him/her about the Electronic Home Note Package intervention**

   - ☐ Indicate it is an intervention to help students to be on-task in the classroom and to help them complete their classwork
   - ☐ Indicate that the Electronic Home Note is an online way for teachers to record his/her on-task and classroom efficiency behavior
   - ☐ Inform the participant that he/she will be monitored on "On-Task" and "Academically Engaged," and the two optional behaviors chosen by their teacher
   - ☐ Inform the participant that their parent will review the teacher's ratings daily with the participant
   - ☐ Inform the participant that by reviewing the ratings with the parents, the participant will be able to earn rewards from the researcher or volunteer educator

2. **Have the participant model the behaviors on their Electronic Home Note**

   - ☐ Have the participant show what "On-Task" behavior looks like: "*looking at the teacher or their work and doing what the teacher wants"*
   - ☐ Have the participant show what "Academically Engaged" looks like: "*actively or passively participating in the classroom activity"*
   - ☐ Have the participant show what the two optional behaviors looks like
     **If the participant does model any or all of the behaviors, researcher should exhibit the behavior and have the participant model the behavior back to the researcher*

3. **Show the participant what the Electronic Home Note will look like**

   - ☐ Show the participant the Electronic Home Note
   - ☐ Indicate that ratings are based on ratings given by the teacher
   - ☐ Indicate that the ratings are on a scale of 1 -10 with anchors of "Never" and "Always" at 1 and 10, respectively
   - ☐ Indicate that the teacher can also type comments about the participant on the Electronic Home Note as well as homework assignments

4. **Show the participant what Electronic Home Note ratings will look like**

   - ☐ Submit a mock Electronic Home Note to the researcher's email address
   - ☐ Open and view the Electronic Home Note rating email

- ☐ Show the participant the email and inform the participant of the mock ratings for each behavior and any comments made on the mock Electronic Home Note
- ☐ Have the participant indicate the ratings of each behavior and any comments made on the mock Electronic Home Note
- ☐ Ask for any questions about how to read the email
- ☐ Indicate to the participant that their parents are to review these ratings with them daily

5. Inform the participant of how to obtain a reinforcement for reviewing the Electronic Home Note with their parent

- ☐ Inform the participant that they will be randomly rewarded for reviewing the Electronic Home Note with their parent
- ☐ Inform the participant that after the parents review the Electronic Home Note with them, an email will automatically be sent to the parents informing them if a prize is available the next day
- ☐ Inform the participant that if their parent says if there is a Prize Day available, they should go to the Prize Day office the during the next school day
- ☐ Review the Self-Plotting Graph for on-task behaviors and have the participant create a goal line
- ☐ What was the participant's goal? _____%
- ☐ Have the participant mark the mock ratings reviewed on the Self-Plotting Graph
- ☐ Tell the participant that they can earn prizes for coming to the office reinforcement sessions
- ☐ Tell the participant that they will be able to win prizes and rewards with the Reward Spinner and with a Mystery Motivator (show them the Reward Spinner and Mystery Motivator and demonstrate how it works)
- ☐ Have the participant choose 6 reinforcers to be used with their Rewards Menu
- ☐ Have the participant spin the Spinner Wheel to obtain a prize from their Rewards Menu

6. Review the Participant Assent letter

- ☐ Review the Participant Assent letter
- ☐ Ask for any questions regarding the study or their role in the study

Participant: Site:
Date:

Office Reinforcement Session Checklist
Participant

1. **When the participant first comes to the office reinforcement session**

   - ☐ Greet the participant and thank them from coming
   - ☐ Ask if their parent told them a prize was available

2. **Review the participant's ratings data since the last office reinforcement session**

   - ☐ From the excel spreadsheet, find the participant's data since the last office reinforcement session
   - ☐ Review the ratings for the participant from the previous days
   - ☐ Review any comments made by the teacher
   - ☐ If homework was noted, ask if the participant completed the homework
   - ☐ Ask the participant if they have any questions about their ratings

3. **Have the participant model their target behavior**

   - ☐ Have the participant show what "On-Task" behavior looks like "*looking at the teacher or their work and doing what the teacher wants"*
   - ☐ Have the participant show what "Academically Engaged" looks like "*actively or passively participating in the classroom activity"*
   - ☐ Have the participant show what the two optional behaviors looks like:

   **If the participant does not model any or all of the behaviors, the researcher or volunteer educator should exhibit the behavior and have the participant model the behavior back to the researcher or volunteer educator*
   **If the participant correctly models all behaviors with 100% accuracy across two consecutive office reinforcement sessions, this step can be skipped.*

   - ☐ Was the participant able to model all of the behaviors? _____Yes _____ No

4. **Complete the Self-Plotting Graph and reward the participant with the Reward Spinner (if the participant sought out the office reinforcement session)**

   - ☐ Have the participant fill in all on-task ratings since the last office reinforcement session
   - ☐ Have the participant indicate if their last rating was at or above their goal line
   - ☐ Did the participant meet their goal? _____ YES _____ NO

- **IF YES:** Congratulate the participant, praise their efforts, and tell them you look forward to their next meeting

- **IF NO:** Congratulate the participant on their efforts and indicate that you look forward to them making their goal next time

5. Participant Marking the Fun 'O' Meter

- ☐ After the participant completes the Self-Plotting Graph, have them mark the Fun 'O' Meter
- ☐ Ask if the participant liked the session and thought it was useful
- ☐ If the participant marks the Fun 'O' Meter in the "Ouch!" or "No Help" regions, ask them what is wrong and how you could make it better
- ☐ Try to adjust the sessions to the participant's needs to make it fun and helpful

Teacher: Site:
Date:

Teacher Booster Session Checklist

- ☐ During independent seatwork time, give the participant a math worksheet that is provided by the researcher
- ☐ Monitor the participants behavior for the 15 minutes allowed for the worksheet
- ☐ Collect the math worksheet after the 15 minutes is completed
- ☐ Access the Electronic Home Note after the participant's independent math seatwork time
- ☐ Indicate a rating for the "On-Task" behavior
- ☐ Indicate a rating for the "Academically Engaged" behavior
- ☐ Indicate ratings for the two optional behaviors
- ☐ Make comments and/or indicate homework assignments in the Comments section
- ☐ Click submit on the Electronic Home Note

Participant Site:
Date:

Parent Booster Session Checklist

- ☐ Check email daily for the Electronic Home Note data from the teacher
- ☐ Review the Electronic Home Note data with the participant
- ☐ Review the rating for the “On-Task” behavior
- ☐ Review the rating for the “Academically Engaged” behavior
- ☐ Review the rating for the two optional behaviors behavior
- ☐ Review the comments and/or homework assignments made by the teacher
- ☐ Congratulate the participant on their efforts
- ☐ Reply to the email, indicating the Electronic Home Note has been review with the participant
- ☐ If a “Prize Day Email” is received, indicate to the participant that a prize day is available when they come to school the next day. Congratulate the participant on earning a prize
- ☐ Indicate that the participant is to go to the Prize Day office before school starts to get their prize

Teacher: Site:
Date:

Teacher Follow-Up Session Checklist

- ☐ During independent seatwork time, give the participant a math worksheet that is provided by the researcher
- ☐ Monitor the participants behavior for the 15 minutes allowed for the worksheet
- ☐ Collect the math worksheet after the 15 minutes is completed
- ☐ Indicate the math worksheet will be collected by the researcher or volunteer educator daily

APPENDIX G

ELECTRONIC HOME NOTE

Edit this form

Electronic Home Note

JOHN DOE

* Required

Parent's email adress *

exampleemail.com

On Task *

Looking at the teacher or their work and doing what the teacher wants

1 2 3 4 5 6 7 8 9 10

Never Always

Academically Engaged *

Is actively or passively participating in the classroom activity

1 2 3 4 5 6 7 8 9 10

Never Always

Optional Teacher Behavior #1 *

Description of Optional Teacher Behavior #1

1 2 3 4 5 6 7 8 9 10

Never Always

Optional Teacher Behavior #2 *

Description of Optional Teacher Behavior #2

1 2 3 4 5 6 7 8 9 10

Never Always

Comments

Include any comments you would like the parent to receive or any homework the student has

Guidelines to Creating the Electronic Home Note from the Google Forms Application

1. Create a Google account by accessing http://www.google.com and clicking Sign In
2. Click "Create an account"
3. Follow the steps to create a Google account
4. Access your Google Drive at http://drive.google.com
5. Click the "Create" button and click on "Form"
6. Create a title by replacing "Untitled form" with the desired title
    a. For the purpose of the study, the researcher created the title Electronic Home Note
7. Replace "Question Title" with "Parent's Email"
    a. Change the "Question Type" scroll menu to "Multiple choice"
        i. Replace "Option 1" with the intended parent's email
    b. Click the "Required question" box
    c. Click "Done"
8. Click "Add item"
9. Replace "Question Title" with "On-Task"
    a. Change the "Question type" scroll menu to "Scale"
    b. Change the scale boxes to "1" and "10"
    c. In box 1, create the label "Never"
    d. In box 10, create the label "Always"
    e. Click the "Required question" box
    f. Click "Done"
10. Click "Add item"
11. Repeat Steps 9 and 10 using the Question titles: "Academically Engaged," "Optional Teacher Behavior #1," and "Optional Teacher Behavior #2."
12. Replace "Question Title" with "Comments"
    a. Change the "Question Type" scroll menu to "Paragraph text"
    b. Click "Done"
13. Under the Confirmation Page heading, click the box next to "Publish and show a public link to form results"
14. Click the "View Responses" button at the top of the page
    a. This will open a page to the embedded Excel spreadsheet where results can be found
    b. The program will ask you to save the project under a name
        i. For the purpose of the study, the researcher titled this Electronic Home Note
15. At the top of the Excel spreadsheet, click on the "Tools" scroll menu

a. Click on “Script Editor”
b. Delete all information in the current script
c. Enter the following script:

```
“
function sendFormByEmail(e)
{
  var email = e.values[1];

  var subject = "Electronic Home Note Report";

  var s = SpreadsheetApp.getActiveSheet();
  var headers = s.getRange(1,1,1,s.getLastColumn()).getValues()[0];
  var message = "Please review this data with your student. Thank you!!
";

  for(var i in headers)
    message += headers[i] + ' = '+ e.namedValues[headers[i]].toString() +
"\n\n";

  MailApp.sendEmail(email, subject, message);
  }
“
```

d. Click the “Run” button at the top of the page
    i. The program will ask you to save the project under a name
        1. For the purpose of the study, the researcher titled this Electronic Home Note

16. At the top of the Script Editor, click the “Resources” scroll menu
    a. Click on “Current project’s triggers”
    b. Click on “No triggers set up. Click here to add one now.”
    c. Change the “Time-driven” scroll menu to “From spreadsheet”
    d. Change the “On open” scroll menu to “On form submit”
    e. Click “Save”
        i. An Authorization page will appear
            1. Click Accept
17. Exit the Script Editor page
18. At the top of the Excel spreadsheet, click on the “Tools” scroll menu
    a. Click on “Notification rules…”
    b. Click the bubble next to “A user submits a form” and “Email- right away”

c. Click Save

19. At the top of the Excel spreadsheet, click on the “Insert” scroll menu
    a. Click on “Chart”
        i. In the “Data-Select ranges” box, add ‘Form Responses 1’!C1:F24
            1. For more/less graphing the user must select more rows by replacing the “24” with the amount of rows needed
        ii. Click the “Use row 1 as headers” box
    b. Click the “Charts” section
        i. Click on “Line”
        ii. Click on the “Line Chart” box
    c. Click the “Customize” section
        i. Under “Chart” replace Title with “Electronic Home Note”
        ii. Under “Horizontal Axis” replace Title with “Sessions
        iii. Click “Horizontal Axis” and select “Vertical Axis.” Replace Title “Rating”
        iv. Set “Min” at 1, set “Max” at 10
    d. Click Insert
20. On the top right scroll menu of the chart, click on “Move to own sheet…”
    a. This will move the chart to its own sheet at the bottom of the Excel Spreadsheet
21. Double click the “Form Responses 1”
    a. Replace the name with “Responses”
22. Double click the “Chart 1”
    a. Replace the name with “Response Graph”

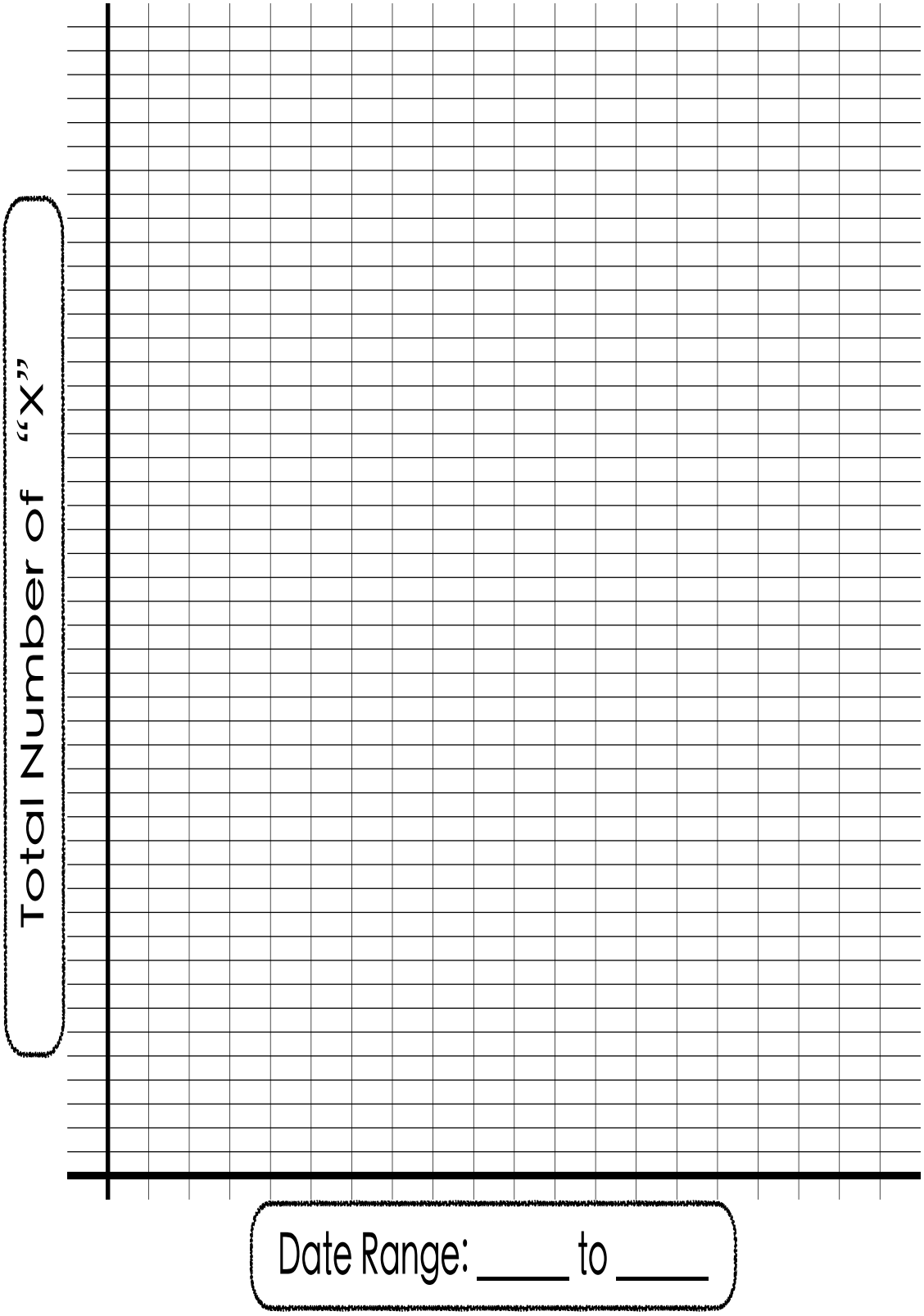
After these steps have been completed, the Google Form application will automatically save the Electronic Home Note to the user’s Google Drive and can be accessed at any time

APPENDIX H

SELF-PLOTTING GRAPH

Student/Team/Class: _____ Goal: _____

Behavior: _____



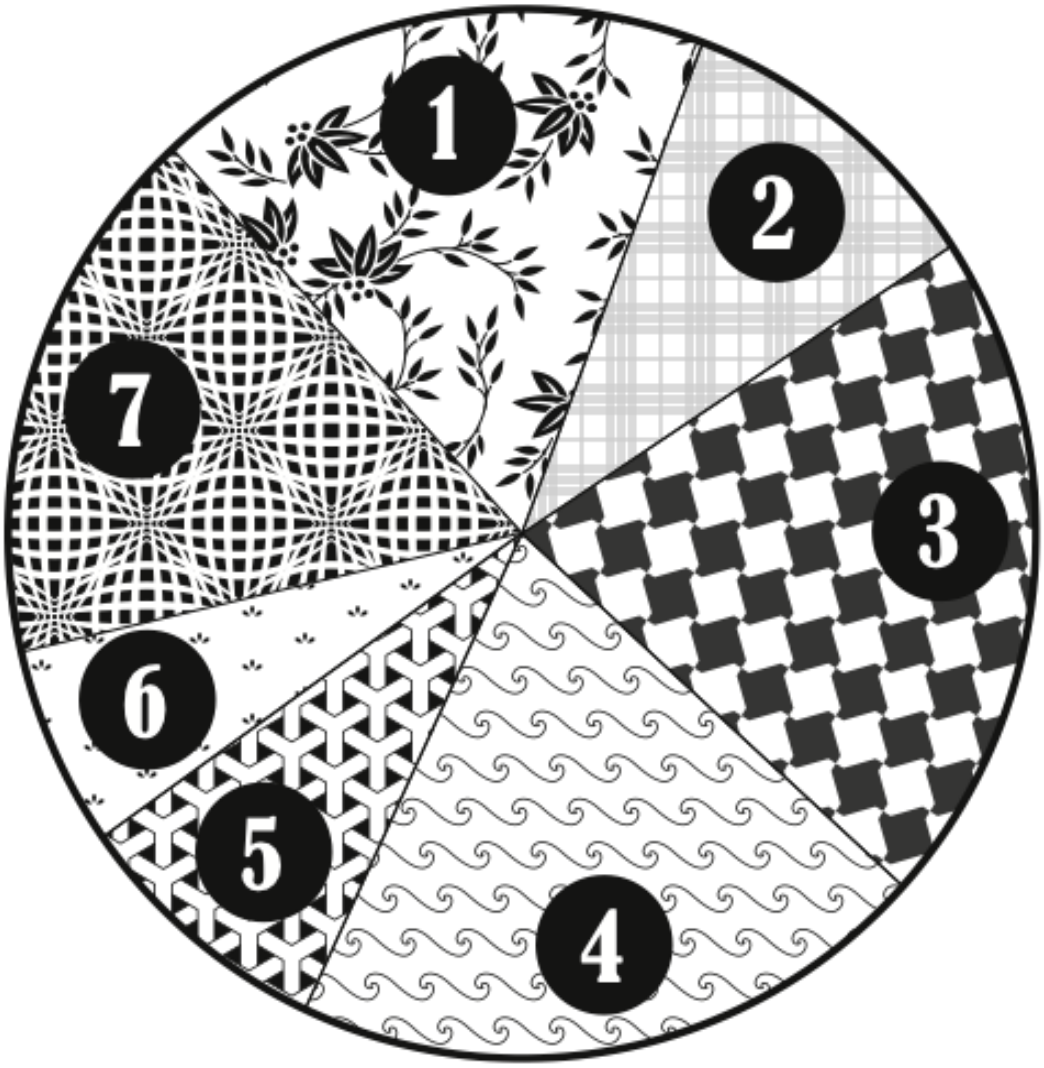
APPENDIX I

REWARD SPINNER AND REWARDS MENU

Tough Kid Tool Box K-12 FOR GRADES

REPRODUCIBLE 6-6b
(Version 2)

Spinner



See p. 76 for suggestions for use.

Tough Kid Tool Box K-6 FOR GRADES

REPRODUCIBLE 6-1a
(Version 1)

Reinforcer Menu

1

2

3

4

5

6

See pp. 75 and 76 for suggestions for use.

REFERENCES

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